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THE PHYSIOLOGY OF ARTERIOVENOUS FISTULAS*†

The Davidson Lecture for 1953

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TRADITIONALLY, there have been a few topics in medicine which have crossed over the conventional boundary lines of medical science and have captured the interest of investigators trained in a variety of scientific disciplines. The study of arteriovenous fistulas has been a striking example. It has served to challenge the anatomist, the physiologist, the internist, the clinical and experimental surgeon, the cardiologic investigator, the specialist in peripheral vascular disease, and even as austere a person as the man devoted to the renal excretion of salt and water. The topic is perhaps all the more fascinating because of a historical peculiarity. The clinical incidence of arteriovenous fistulas, never high in the general civilian population, approaches epidemic proportions in wartime, thus permitting concentrated waves of assault by investigators who become interested in this problem. Within the generation of modern medicine, society has unfortunately obliged us with two "pandemics" and one currently semi-generalized "epidemic," each of which has produced several hundred well studied cases of traumatic arteriovenous fistulas.

It is the purpose of this paper to review the physiology of arteriovenous fistulas and to report original observations made on casualties of the war in Korea.

HISTORY

The first clinical description of an arteriovenous fistula is generally credited to William Hunter in 1757. Nicoladoni[1] in 1875 published a kymograph tracing of a pulse wave recording before and during digital occlusion of a brachial arteriovenous fistula and demonstrated a marked slowing of the pulse rate. First interest in this country was stimulated by the independent observation of this bradycardiac reaction by Branham[2] in 1890. This phenomenon is still popularly known as "Branham's sign." In 1902 Matas[3] reported on the successful operation of a subclavian arteriovenous aneurysm and discussed the problem of collateral circulation and physiological tests which might be used to measure its adequacy.

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The number of cases resulting from gunshot and shrapnel wounds in World War I was tremendous. The relationship between such fistulas and cardiac changes was documented in the French and German literature before the war, and the occurrence of congestive failure had been reported by Stewart.[4] Sudden death had been noted by Osler.[5] When the problem became acute during that war, Makins,[6] Cazamian,[7] and others recognized a causal relationship between the abnormal arteriovenous communication and the associated cardiac manifestations. By 1920 Callander[8] was able to collect reports on 447 cases. Reid[9] began an experimental program under the direction of Halsted in 1914 and stated, "We were fully convinced that a fistula between the large vessels of the neck or legs may cause marked hypertrophy and dilatation of the heart, and in some instances cardiac decompensation and death." This work was subsequently reviewed and extended.[10, 11] The interest aroused by the war was carried back to the experimental laboratories[12-15] and many outstanding surgeons and clinicians carried out significant clinical investigations on the altered physiology of arteriovenous fistulas.[16-22]

In World War II organization of "centers" for the treatment of vascular injuries made possible the collection of large numbers of patients with arteriovenous fistulas and facilitated the planning of investigative programs.[23-26] With the advent of hostilities in Korea a similar center for vascular surgery was established at the Walter Reed Army Medical Center. Most of the detailed information in this survey is related to unpublished and published observations on these patients.

EFFECTS OF AN ARTERIOVENOUS FISTULA UPON THE HEART AND ITS OUTPUT

The clinical association between the presence of an arteriovenous fistula and cardiac enlargement has long been suspected because of the apparent causal connection between the lesion and the development of congestive failure in advanced cases. Chronic failure was noted by Stewart[4] in 1913, Makins[6] in 1916, Matas[3] in 1925, Pemberton[19] in 1928, Holman[14] in 1937, Reid and McGuire[10] in 1938, and others. The more rapid development of congestive failure was noted by Hoover.[27] That the causal relationship was no coincidence was supported by observations of the surgeons. Cazamian[7] noted diminution of the cardiac size after surgical closure of the fistula. Other striking cases were reported by the French surgeons, Leriche, Gregoire, Lian, Nanu, and others. Reid[9] measured the cardiac enlargement in animals following experimentally produced anastomoses. With the advent of technics to quantify physiologic changes in the cardiovascular system intensive investigation ensued.

Lewis and Drury[12] demonstrated in 2 human cases that blood flow in the arms and skin was diminished in the presence of a patent femoral fistula. They noted that direct blood leakage from artery to vein lowered the mean arterial pressure and consequently the blood flow through capillaries of the skin. Similarly, the fall in aortic pressure would, they postulated, result in a fall in coronary perfusion pressure, and therefore the cardiac enlargement, "presumably primarily and chiefly a dilatation, is due to a deficient nutrition of the heart muscle, consequent on the fall of mean arterial pressure."

At this time the first experimental work of Holman[14] appeared and stressed the importance of the size and duration of the fistula in determining general circulatory effects. Large fistulas invariably produced hypertrophy and dilatation of the heart. It was postulated that these changes were the result of increased blood flow through the heart per unit of time. Harrison, Dock and Holman[13] applied the Fick principle to the measurement of cardiac output in 4 dogs with experimental femoral or iliac arteriovenous fistulas. The volume of blood flow through the lungs was increased by approximately 100 per cent in the presence of a fistula as compared with the flow prior to production or following elimination of the fistula. The increased cardiac effort necessary to propel this increased flow was thought to be sufficient to cause cardiac hypertrophy in these animals. This increase in cardiac work was noted by Hermann[28] and calculated mathematically by Gley and Gomez.[29] Several other investigators have found consistent elevation of cardiac output measured in experimentally produced fistulas in animals.[15, 30-32]

In the series of Lillehei et al[32-A] the cardiac index in 7 fistulous dogs was 13.2 ± 1.94 as contrasted to 4.85 ± 1.73 in their preoperative control series of 10 dogs. This was accompanied by an elevation of right auricular pressure to a mean of 3.77 ± .8 versus control values of 0.65 ± .4 mm. Hg. Relatively few good cardiac output measurements have been made in human cases, and the results have not been too consistent.

With the clinical material available in the vascular center organized in World War II, Warren and his co-workers[24] attempted the first large scale measurements of cardiac output in humans with traumatic arteriovenous fistulas. All published data were obtained by the indirect method of ballistocardiography. The postoperative value of the cardiac index was used as each patient's own control. In 25 (53 per cent) of 47 patients there was an elevation of the cardiac output with the fistula open, ranging from 25 to 127 per cent above the postoperative level. The series included a good many small fistulas (for example, 11 of the 47 involved the tibial artery). Only 7 of their patients had a basal pulse rate above 85 per minute with the fistula intact. In this group the average increase in cardiac index was 82 per cent, and all showed substantial elevations.

During the short postwar interlude considerable background research was carried out on the dye injection method of measuring cardiac output.[33-37] Although the principles involved in this technic had been well introduced by Stewart[38] in 1897 and worked out in considerable detail by Hamilton and others,[39] it was infrequently employed until recent studies validated its use by comparison with the direct Fick procedure,[33, 34, 40] employment of the rotameter,[41] and simultaneous studies with radioactively labeled human albumin[37] and erythrocytes.[42] The accuracy of the method as now employed depends largely on one's ability to delineate the downslope of the curve, which, when sampled from the femoral artery, is interrupted by recirculation of dye which has already returned to the right side of the heart and re-mixed with the cardiac output.

Considerations of such recirculation naturally assumed primary importance when plans were made to use this direct method in the study of human arteriovenous fistulas which became available with the advent of the Korean War. Schreiner et al[43] showed that, because of the peculiar physiology of arteriovenous fistulas, the downslope of the first circulation dye curve could usually be well delineated in such patients and the validity of the dye injection method as a direct measurement of cardiac output was supported. These authors measured the cardiac index in 6 patients with large arteriovenous fistulas involving femoral, carotid and popliteal arteries in 8 postoperative subjects, and in 11 control subjects. The average cardiac index for the control group was 3.8, for the postoperative group, 4.2, and for the preoperative group, 5.9. One patient with a large popliteal fistula had a cardiac index of 8.44 liters per minute. The data are presented in detail in table 1. In 3 patients, because of the anatomical location, it was possible manually to occlude the fistula, and the dye injection curve was exactly repeated after 1 minute of occlusion. Cardiac indices fell to 43, 72 and 70 per cent respectively of the value obtained with the fistula open. These data are presented in table 2. British investigators[44] have verified these effects.

It seems well demonstrated, therefore, that patients with traumatic arteriovenous fistulas frequently have significant elevations of their cardiac output. Such elevations are grossly correlated with the size of the artery supplying the fistulas and may approach the level of output recorded in athletes undergoing rigorous exercise. The increased output can be turned off

TABLE 1

Traumatic Arteriovenous Fistulas, Circulatory and Dye-Curve Data

DIAGNOSIS	PLASMA CARDIAC OUTPUT, *c.c./Kg.*	CARDIAC INDEX, *L./min. M²*	APPEARANCE	UPSLOPE	DISAPPEARANCE	CLEARANCE	APPEARANCE TO MANIFEST RECIRCULATION	PEAK TO MANIFEST RECIRCULATION	PEAK RECIRCULATION
			Time in seconds						
Control Group									
1. Student	52	3.41	12	6	22	28	16	10	18
2. Student	66	4.83	16	10	25	35	20	10	16
3. Thrombophlebitis	44	3.58	16	6	23	29	18	12	20
4. Peptic Ulcer	59	4.34	10	4	19	23	14	10	18
5. Frostbite	31	2.53	10	6	19	25	20	14	22
6. Hepatitis	41	2.60	16	12	24	36	20	8	24
7. Frostbite	43	2.99	16	6	23	29	20	14	20
8. Parotitis	60	4.8	14	12	11	23	22	10	18
9. Renal Calcinosis	55	4.23	14	6	22	28	16	10	18
10. Postganglioneurectomy	63	4.18	10	4	11	15	14	10	16
11. Ulcerative Colitis	72	4.62	10	6	10	16	14	8	16
Mean	53.3	3.83	13.1	7.1	19	26.1	17.5	10.0	18.7
A-V Fistula Preoperative									
Site									
1. R. Popliteal	89	6.91	7	7	10	17	15	8	12
2. R. Femoral*	—	—	9	—	—	—	—	—	—
3. R. Femoral	74	6.18	10	4	12	16	12	8	10
4. R. Carotid	71	4.47	11	7	23	30	15	8	10
5. R. Popliteal	128	8.44	11	5	11	16	15	10	14
6. R. Femoral	58	4.95	18	8	32	40	16	8	14
7. L. Femoral	55	4.43	10	8	22	30	14	6	10
Mean	79.2	5.90	10.8	6.5	18.3	24.5	14.5	8.0	11.7
A-V Fistula Postoperative									
1. L. Femoral	82	5.21	13	3	24	27	11	8	16
2. R. Femoral	38	3.58	14	6	19	25	18	12	20
3. R. Femoral	78	5.52	6	6	11	17	14	8	18
4. R. Subclavian	58	3.97	12	8	16	24	16	8	16
5. L. Femoral	72	4.34	11	7	12	19	19	12	22
6. R. Carotid	50	2.98	12	8	24	32	20	12	18
7. R. Carotid†	74	4.68	14	4	12	16	14	10	17
8. R. Popliteal	49	3.33	12	6	14	20	16	10	20
Mean	62.6	4.20	11.8	6	16.5	22.5	16	10	18.4

* Early re-circulation prevented delineation of downslope.

† Spontaneous closure. See discussion.

immediately by manual occlusion of the fistula or by occluding blood flow to the involved limb by means of an inflated cuff. It can be obliterated by surgical ligation of the fistula or reëstablishment of arterial continuity. There seems little doubt that it is a hemodynamic event directly and causally related to the presence and size of a connecting channel between the left and right sides of the circulation. This increased output is responsible for an increase in heart work[29, 45] and may sometimes produce changes in heart size.[46]

TABLE 2

Traumatic Arteriovenous Fistulas. Studies Related to Manual Occlusion

CASE STUDY		CARDIAC INDEX 1	APPEARANCE 2	APPEARANCE TO MANIFEST RECIRCULATION 3	PEAK RECIRCULATION 4	RATIO COL. 3 / COL. 4
		L./min./M²	*Time in Seconds*			
I	A	8.44	11	15	14	1.07
	B	3.62	14	16	20	.8
	C	3.33	12	16	20	.8
II	A	4.47	11	15	10	1.50
	B	3.21	12	18	20	.9
	C	2.98	12	20	18	1.1
III	A	4.95	18	16	14	1.14
	B	3.45	18	16	20	.8

I. Rt. Popliteal Arteriovenous Fistula
  A. Fistula open. Eight months after wounding.
  B. During manual occlusion for one minute preceding injections. Pulse diminished 8 beats/min.
  C. Three months after surgical repair of fistula.
II. Rt. Carotid—Jugular Arteriovenous Fistula
  A. Fistula open. Three months after wounding.
  B. Manual occlusion. Pulse diminished 18 beats/min.
  C. Five weeks after surgical repair of fistula.
III. Rt. Femoral Arteriovenous Fistula
  A. Fistula open. Two months after wounding.
  B. Manual occlusion. Pulse diminished 32 beats/min.

Effect of a Fistula on the Rate of the Heart Beat

It has been noted that Nicoladoni[1] in 1875 observed the interesting phenomenon known popularly as Branham's sign, i.e., a rapid resting pulse rate with marked slowing upon occlusion of an arteriovenous fistula. However, Branham's description[2] is so succinct that it bears repeating: "The most mysterious phenomenon connected with the case, one which I have not been able to explain myself, or to obtain a satisfactory reason for from others, was slowing of the heart's beat when compression of the common femoral was employed—this symptom became more marked until pressure of the artery above the wound caused the heart beat to fall from 80 to 35 or 40 per minute and so to remain until the pressure was relieved. Compression of the artery of the sound limb produced no such effect."

This sign has been noted by almost every subsequent investigator. Lewis and Drury[12] postulated that the sudden rise in mean arterial pressure in the aorta on occlusion of a fistula would invoke Marey's law and that this reflex was mediated on the efferent limb by the vagus, since they were unable to demonstrate the retardation after atropinization of the individual. Kramer and Kahn[47] demonstrated in 10 patients that atropine in adequate dosage was capable of preventing slowing of the pulse. Cohen et al[44] deny this effectiveness of atropine. The postulation that the area of the fistula can become sensitized and take on the afferent function of a carotid body is questioned because of the lack of correlation of this sign with site and size of the fistula and the persistence of the effect even when a high spinal anesthesia is used[48] to block afferent nerve impulses from this area.

Nickerson et al[25] studied 25 cases with fistulas in the extremities. Upon temporary occlusion there was a decrease amounting to more than 4 beats per minute in 68 per cent of the cases. The maximum change was 32 beats per minute. In our series of 28 patients with predominantly major fistulas there was a decrease in heart rate on occlusion ranging from 0 to 48 and averaging 13 beats per minute.[43] Although there was no absolute correlation between the magnitude of this sign and other parameters of fistula size, degree of collateral circulation, etc., a rough trend can be extracted from the clinical correlative data which are presented in table 3.

Thus, since most patients with large arteriovenous fistulas have a normal or moderately elevated resting pulse rate and that the pulse rate is decreased immediately upon occlusion of the connecting channel to the point of disappearance of the bruit, this change in heart rate (Nicoladoni-Branham sign) is useful diagnostically since it is not present in simple aneurysms. This is probably executed by a neural mechanism with the stimulus initiated in the pressure receptors of the aortic arch and carotid sinus in response to the rise in mean arterial pressure noted on closure of a fistula. The efferent limb is probably the vagus nerve and can be blocked by atropinization.

TABLE 3

Clinical Correlation of Size of Fistula, Nicoladoni-Branham Sign, Heart Size Collateral Circulation and Increase in T-1824 Space

SITE OF FISTULA	SIZE OF (1) FISTULA 0 TO ++++	SIZE OF (2) HEART	NICOLADONI-BRANHAM'S SIGN DECREASE	COLLATERAL (3)	T-1824 SPACE
				Circulation 0 to ++++	% above Mean Control
			beats/min.		
F	0	N	0	0	+16
F	0	N	0	++	+18
F	+	N	0	++	+32
P	+	N	4	+	+14
T	+	N	8	+	0
P	++	N	18	–	+19
F	++	↑ 15%	12	+++	+11
F	++	N	4	++++	+57
T	++	↑ 15%	4	+	+26
F	++	N	32	+++	+19
B	++	N	4	++	+3
F	++	N	40	++++	+34
P	++	N	12	++	−4
F	+++	N	12	++++	+21
F	+++	N	20	+++	
F	+++	N	12	++++	+19
B	+++	N	8	+++	+3
P	+++	N	8	++++	+50
B	+++	↑ 15%	8	++++	+2
P	+++	N	6	+	+16
F	+++	N	10	++++	0
F	++++	N	16	++++	+15
F	++++	N	4	++	+10
C	++++	↑ 10%	18	++++	+11
F	++++	N	8	++++	+6
F	++++	N	48	++++	+9
P	++++	N	24	++++	+22
S	++++	N	22	++++	+29

1. Independent estimate of fistula size by Major Edward Jahnke, based on clinical evaluation and appearance at surgery.
2. From X-ray measurements. N = within normal limits.
3. Total clinical estimate based on color, skin temperature, oscillometric pulsations, radiography, etc.
4. Mean T-1824 Space of 30 control subjects was 38.5 c.c./Kg.

EFFECT OF A FISTULA ON THE PRESSURE WITHIN THE VASCULAR SYSTEM

Opening a connection between an artery and a vein lowers both diastolic and systolic pressures immediately. In large fistulas this can lead to fatal shock. As cardiac output increases under the influence of the shunt the systolic pressure tends to rise toward normal. There is thus a net increase in pulse pressure and a consistent decrease in mean arterial pressure. Clinical blood pressure readings in our own patients[43] were commonly in the range of 100–120/40–70 mm. Hg. The average blood pressure in Epstein's series was 111/59. These pressure relationships are reversed by compression, ligation or removal of the fistula. Epstein et al[49] measured central pressures and found that mean right atrial pressure, diastolic pressure in the right ventricle, and mean pulmonary arterial pressure decreased in some patients and did not change in other patients when the fistula was temporarily occluded.

There has been some controversy over the status of venous pressure in arteriovenous fistulas. Inability to detect a rise prompted Lewis and Drury[12] to debate the issue of increased cardiac output. However, moderate increases have been noted clinically and were present in a few of our cases. They have been recorded by Cohen et al[44] who thought that decreases in cardiac output on compression depend more on heart rate than venous pressure changes. In dogs it is often difficult to interpret venous pressure changes because of the high incidence of congestive failure following creation of large fistulas.

Holman[14(f)] has studied the pressure relationship near the site of the fistula and has found the most important relationship to be the size of the fistula relative to the size of the vessels where it is interposed. A negative pressure accentuated by systole was demonstrated in the proximal vein in the presence of a large fistula. This was interpreted as a Venturi effect due to the high velocity of flow from the high pressure to the low pressure area. The patency of the distal arterial segment was found essential to the development of collateral circulation.

Effects of a Fistula on Distribution of Intravascular Flow

It has been seen that investigators as far back as Lewis[12] commented on the deviation of blood flow from the skin in the presence of an arteriovenous shunt. Others have noted the change in the fluoroscopic shadow of the pulmonary vessels, the change in pulmonary vessel size on compression of a fistula, and the frequent dissociation between changes in heart rate and stroke volume. These observations, in addition to the anticipated effect of the fistula as a localized area of decreased peripheral resistance, have led to the recognition of substantial intravascular shifts of blood flow in this disease. With the introduction of the dye injection technic in the study of these patients, it became possible to indicate some of these shifts. The dye curve has been dissected into its component times and the results of this method are presented in table 1.[43] The most important parameters seem to be the peak re-circulation time, which is the interval from maximum concentration of dye in the first circulation to maximum concentration of the re-circulation, and the manifest re-circulation time which is the first deviation from the exponential nature of the downslope. These definitions are presented graphically in figure 1. In 6 patients with open fistulas the manifest re-circulation was shortened only 3 seconds while peak re-circulation was shortened 7 seconds from a control group. In 3 patients measured before and after manual occlusion, the peak re-circulation increased from 14 to 20, 10 to 20, and 14 to 20 seconds respectively on compression of the fistula, while the manifest re-circulation barely increased 15 to 16, 15 to 18, and 16 to 16 seconds respectively. This dissociation is interpreted to mean that the presence or absence of a fistula has little effect on the normal short circulations but is responsible for the dynamic deviation of a large bulk of blood from the periphery toward the more rapid central circulatory beds. When the fistula is closed, this blood again circulates through longer pathways. This situation is in contrast to that measured in exercising a patient with mitral stenosis, when acceleration of both circulation times occurred proportionately.

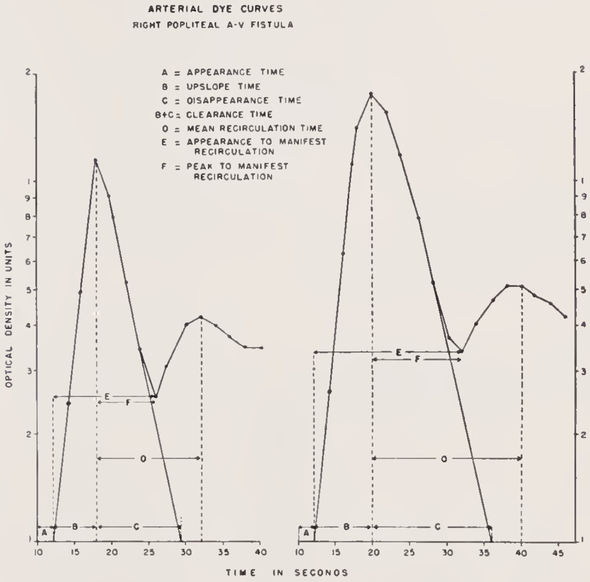

FIGURE 1

Effect of a Fistula on Blood Volume

There has been a widely accepted clinical impression that the blood volume is enlarged in the presence of an arteriovenous fistula, and this has even been cited as the cause of the occasional increases in heart size and of the pulmonary edema which is described as a surgical hazard upon ligation of the fistula at operation. This impression was based upon experiments by Holman[14(e)] using brilliant vital red as the indicator and upon scattered observations made by subsequent investigators. Warren et al[26] used the 10-minute, single point T-1824 dilution to measure "plasma volume" in 41 patients with arteriovenous fistulas after removal of the fistulas and found that 44 per cent of their patients showed a decrease of from 200 to 1,060 ml. per square meter of body surface.

In our study[13] 10- to 30-minute, 6-point

T-1824 slopes and spaces (by extrapolation) were measured in 31 preoperative patients, 29 postoperative patients, and 30 control subjects. The 90 individual determinations and mean values are plotted in figure 2. These volume measurements were combined with protein determinations to measure "effective" circulation protein in 26 preoperative, 26 postoperative and 19 control subjects. Individual data and mean values are presented in figure 3. No correlation could be achieved by classifying the site of involvement. When the volume measurements were divided by 1 minus the hematocrit reading, the range of the fistula group became 65.8 to 108.5 ml./Kg. with a mean of 84 ml./Kg. as compared with a control of 71 ml./Kg. Since the hematocrits in the 3 groups were similar and within normal range, nothing is gained by this conventional calculation of a theoretical "blood volume." Measurements in the 19 individuals who were used as their own controls and studied repeatedly both before and after surgery are presented in figure 4. If the ultimate amount of reduction is interpreted as being equivalent to the elevation due to the presence of a fistula, the per cent elevations ranged from 1 to 50 and averaged 16.7. The preoperative increase in "effective" circulation protein averaged 19.4 per cent and in circulating albumin 18 per cent.

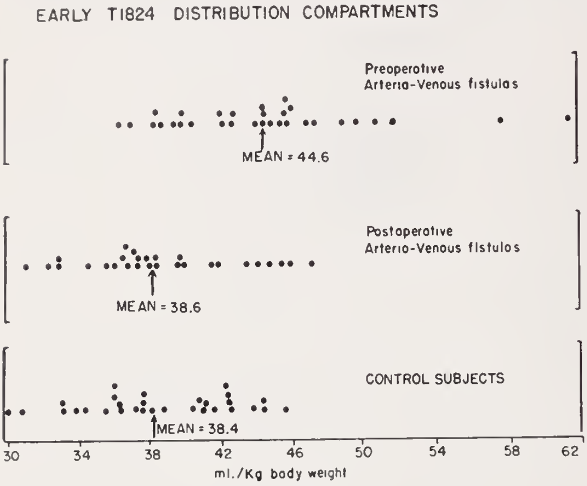

FIGURE 2

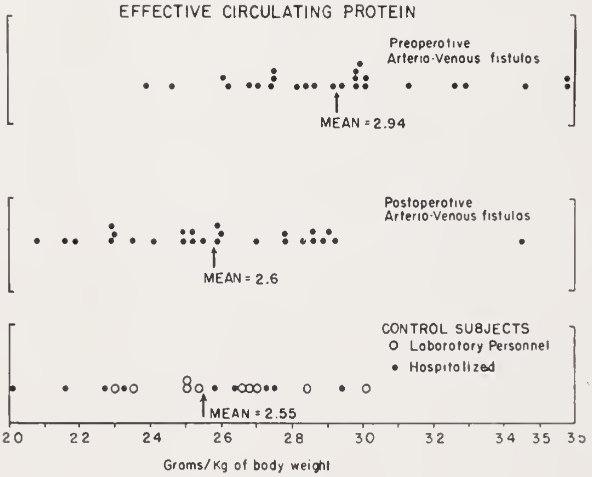

FIGURE 3

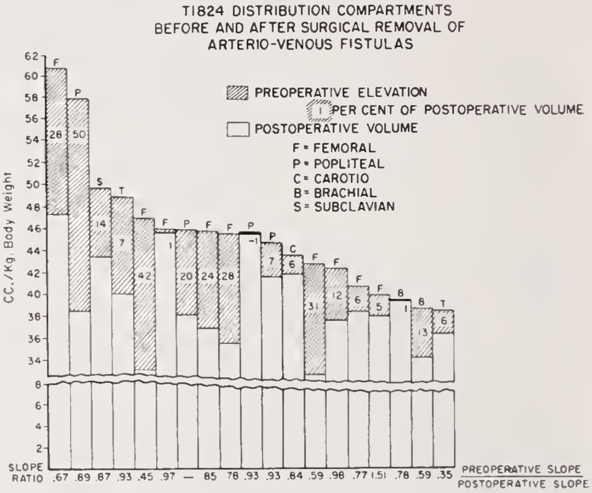

FIGURE 4

The use of a single 10-minute dilution value instead of the extrapolated "zero time" dilution in calculation of the T-1824 space would in this series have resulted in a systematic difference ranging from plus 8 to plus 190 ml. with an average of 108 ml. Preoperative slopes, in general, were flatter than normal slopes. This is best seen when the slopes of the same individual are compared pre- and postoperatively. Preoperative/postoperative slope ratios were less than unity in 17 out of 18 cases. The mean ratio was

0.78. Individual ratios are presented at the bottom of figure 4.

Investigations into the mechanism of this increase have led to the hypothesis that this may be due to the peculiar hemodynamic events in arteriovenous fistulas leading to an initial mixing of the dye protein label into a larger portion of the ultimate albumin distribution compartment.[50] This would point to an interpretation of previous measurements not as an increase of "blood volume" in the conventional sense but as an alteration in normal intravascular mixing phenomena. This view has been substantiated by the finding of normal p-22 red cell volumes in animals with experimental arteriovenous fistulas.[51]

EFFECT OF A FISTULA ON CENTRAL BLOOD VOLUME

In 1951 Newman et al[35] introduced a method of calculating the central blood volume from the cardiac output and the slope of the descending limb of the first circulation dye injection curve. This measurement was carried out by us in 6 individuals with arteriovenous fistulas.[43] The average central volume was 1,322 c.c., representing 19 per cent of the total blood volume. A control series of 16 patients had an average central volume of 720 c.c. or 13.3 per cent of the total blood volume. This figure is in good agreement with the figure of Newman on 9 normal subjects of 715 c.c. or 15 per cent of blood volume.[52]

These data are supported by the clinical observations of surgeons who have noted a change in the size of pulmonary vessels under direct observation when the connecting channel is ligated. Laplace[16] noted on fluoroscopy a widening of pulmonary vascular markings when a peripheral arteriovenous fistula is released and a narrowing of these vessles on compression. These observations would indicate distribution of blood from the central to the systemic circulation when a fistula is occluded.

EFFECTS OF A FISTULA ON RENAL HEMODYNAMICS AND ELECTROLYTE EXCRETION

Recent work on this problem[53] has emphasized the fertility of approaching arteriovenous fistulas from the viewpoint of their broad physiologic implications. These authors measured inulin and para-aminohippurate clearances, and sodium and potassium excretion in 17 resting subjects with patent fistulas, during compression of their fistulas for 20 to 50 minutes, and during the recovery period of from 20 to 50 minutes. As a control, some of the same patients were measured postoperatively with compression applied to the site of their previous fistulas.

Acute occlusion and release of the shunt did not significantly change any of the functional clearances. This stability in the face of a rise in mean arterial pressure is best interpreted as representing a compensatory change in renal vascular resistance due to afferent arteriolar constriction.

Sodium excretion, however, increased appreciably during the period of compression. The increase ranged from 0.020 mEq./min. to 0.234 mEq./min. This amounted to an average natriuresis of 144 per cent of the control sodium excretion. There was no consistent change in the excretion of potassium.

These authors emphasize the changes in mean arterial pressure which occur on occlusion of a fistula and postulate a redistribution of blood within the circulatory system. They indicate that arteriovenous fistulas represent another physiologic situation demonstrating the idea that "renal excretion or retention of sodium is conditioned by the degree of filling of some portion of the vascular tree."

LOCAL EFFECTS OF A FISTULA

Local changes from the presence of an arteriovenous fistula are important diagnostically because they first attract the patient's attention, and therapeutically because they so often determine the surgeon's course of action.

In addition to the history of suitable trauma (projectile, knife or bayonet, pitchfork, etc.) the first sign noted by the patient or examiner in a fistula of the extremity is a pulsatile mass with dilated, pulsating venous pattern in the area; swelling and edema of the extremity; pigmentation progressing to ulceration, and the frequent development of symptoms of impaired blood supply to the distal limb (e.g., intermittent claudication or neuritis).

Frequently a vibrating thrill can be palpated and a bruit heard which has wide local and bone transmission and may be audible to the patient as he goes to sleep. The murmur has been fully and accurately described by Edwards and Levine.[54] It is a continuous murmur with marked systolic accentuation. It can be converted to a purely systolic murmur by compression of the effluent vein and obliterated by compression of the fistula. The murmur may be transmitted to the cardiac area (Makins' murmur).[6] We[43] have seen 1 patient in whom the murmur persisted despite spontaneous closure of the fistula, as diagnosed from the morphology of the T-1824 dye injection curve (postoperative case 7, table 1) and confirmed at surgery. This patient had a negative Branham's sign.

The venous pressure in the superficial veins around a fistula is usually elevated. In very large fistulas[14(h)] the flow can be so rapid that virtually all the blood in the area flows into large central venous channels, and venous pressure is very low or even negative.

The oxygen content of the blood in the veins draining the fistula is increased and may approach that of arterial blood. This important diagnostic point was first noted by George E. Brown[55] and first entered in medical literature by Yater[56] in 1928, then a pupil of his.

The proximal artery remains highly distensible, and without the limiting effect of local fibrosis, progressive dilatation and arterial degeneration may extend for a long distance proximally and form a dynamic pool for substantial fractions of the total blood volume. It is perhaps these vascular changes that predispose to the development of endarteritis at the fistula site.

Distal to the fistula site, signs of ischemia progress from lowered skin temperature and diminished oscillometric readings to ulceration and gangrene. The pallor and coolness are in striking contrast to the warmth and rubor or pigmentation at the fistula site. Tortuous collaterals are in evidence but nourish little of the distal tissue as the blood flows toward the area of low resistance within the fistulous channel. These collaterals may be so extensive as to permit restoration of a lost distal pulse when the fistula is temporarily occluded.

Cohen et al[44] found that blood flow in the limb distal to the fistula was reduced in lesions up to 2 years, normal in lesions of 5 years, and increased in a lesion of 29 years' duration. The blood flow in the unaffected (contralateral) limb was normal but increased on compression of the fistula. This could be blocked with procaine around the mixed nerve indicating the role of reflex dilatation rather than the effect of elevation of the mean arterial pressure.

SUMMARY

Arteriovenous fistulas are a naturally occurring experiment in circulatory physiology. The present review gives the historical development of basic and clinical investigations on this topic.

Patients with large arteriovenous fistulas demonstrate:

1. Increased cardiac output and cardiac work. Cardiac hypertrophy and failure may follow. Changes are reversible by manual occlusion, ligation or extirpation. There is a rough correlation between these changes and the size of the fistula.

2. Normal or rapid resting pulse rate, slowing of the pulse rate (Nicoladoni-Branham sign) on occlusion of the fistula. This is presumably a response to an increased arterial pressure with the vagus nerve supplying the efferent pathway.

3. Lowered diastolic and systolic blood pressure, increased pulse pressure, decreased mean arterial pressure. Right atrial, end diastolic pressure in the right ventricle, and mean pulmonary arterial pressures are occasionally elevated. Reversal of these changes is demonstrated on manual occlusion of the fistula. Moderate elevations in peripheral venous pressure may occur but are not consistent.

4. On analysis of the dye injection curves, an acceleration of both manifest and peak recirculation times. There is a disproportion between the two interpreted as a dynamic deviation of a large volume of blood toward central circulatory channels without affecting normal short circulations. This is supported by previously noted increases in pulmonary vascular shadows on fluoroscopy and dilatation of pulmonary arteries under surgical observation, and by decreases in skin blood flow.

5. Significant expansion of the T-1824 space, circulating total protein and albumin. This may not be accompanied by an increase in red cell volume and is interpreted as an intravascular mixing phenomenon leading to the distribution of the dye into a larger fraction of the ultimate albumin compartment.

6. A striking increase in the central volume calculation of Newman to almost double a control figure obtained in normal subjects.

7. A significant increase in the renal excretion of sodium during manual occlusion of the fistula amounting to 144 per cent of the control. There was no change in inulin or PAH clearances or potassium excretion.

8. Local effects at the site of the fistula consisting of dilated, pulsatile venous pattern, palpable thrill, continuous murmur with systolic accentuation, physiologic effects of ischemia in the distal limb, low or negative venous pressure in the effluent vein, dilatation of the proximal artery, reversal of flow in the distal artery and collateral arteries, and increased oxygen saturation in the veins draining the fistula. These changes are largely dependent on the site, size and duration of the fistula.

Acknowledgment: I am pleased to acknowledge the active collaboration in many of these studies of Drs. Norbert Freinkel, John Athens, and William Stone III. These studies were made possible by the daily coöperation of patients, technicians, nurses, and physicians at the Walter Reed Army Medical Center. I am particularly grateful to Major General Sam F. Seeley, Colonels William Stone, Thomas Mattingly, Carl Hughes, Major Edward Jahnke, and Drs. Robert Clarke and Franklin Epstein.

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MESENTERIC VASCULAR OCCLUSION*

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MESENTERIC vascular occlusion is one of the most critical and also one of the most baffling of all abdominal emergencies. The mortality rate still remains high. A correct preoperative diagnosis is difficult, and the condition itself is grave even when resection has been accomplished. However, modern supportive therapy helps in making the outlook more optimistic.

The present paper is a review of the cases of mesenteric vascular occlusion reported at Doctors Hospital, Washington, D. C., during a 13-year period. Detailed reports are given of 2 consecutive cases successfully treated.

In 1843 Tiedemann[1] originally identified mesenteric thrombosis as a clinical entity. The pathologic features of this condition were accurately described by Virchow in 1847 and later in 1854. The first successful operation for mesenteric vascular occlusion was reported by Elliott[2] in 1895.

Since the original description of this disease approximately 1,350 cases have been reported in the literature. The Michael Reese Hospital in Chicago had 44 cases in 41,982 surgical admissions during a 10-year period, an incidence of 0.105 per cent. At the Touro Infirmary in New Orleans there were 19 cases observed in 53,232 surgical admissions, also over a 10-year period. At Boston City Hospital there were 51 cases diagnosed and treated in 369,195 medical and surgical admissions. Massachusetts General Hospital reported 13 cases in 57,380 admissions to the surgical and medical wards. One case was noted for each 5,000 hospital population at the Mercy Hospital in Pittsburgh. At the Rhode Island Hospital, Providence, an incidence of 0.003 per cent of cases was found. The variation in these reports on mesenteric vascular occlusion is directly related to the incidence of surgical exploration and autopsy findings at these hospitals.

Etiology

Mesenteric vascular occlusion may be either arterial or venous. It is usually impossible to ascertain the cause of the blockage of a mesenteric vessel. It may be the result of a thrombus or an embolus. The superior mesenteric vessels are most commonly involved. This condition occurs more frequently in males than in females. It occurs in patients of every age from the very young to the very old but more often in those between the ages of 30 to 70 years. Etiologic factors in this disease include: (1) heart disease (rheumatic heart disease or auricular fibrillation) and arteriosclerosis, (2) infections which cause thrombophlebitis, such as appendicitis, pelvic abscess, peritonitis, septicemia or parotitis, (3) hematogenous factors, such as blood dyscrasias, splenic anemia and polycythemia vera, or trauma to the mesenteric vessels, particularly at the time of an operation, (4) mechanical factors that result in portal stasis, as pressure from intra-abdominal tumors, and (5) thromboangiitis obliterans. It is uncertain whether mesenteric thrombosis which occurs in the course of thromboangiitis obliterans is a coincidental finding or whether it is a manifestation of the disease, since it is often a simple thrombosis of a mesenteric vessel rather than thrombosis secondary to an occlusive vascular phenomenon. Whether the occlusion occurs in an artery or a vein, hemorrhagic infarction results.

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Trotter[3] believed 60 per cent of his cases were caused by arterial occlusion and 40 per cent by venous obstruction. Sixty per cent of the arterial occlusions were due to emboli. Emboli may come from vegetations in the valves of the left side of the heart, from mural thrombi in the left side of the heart, and from thrombi on atheromatous plaques or from parts of the plaques themselves. Venous occlusion is usually subsequent to endophlebitis. Experimentally it has been found that sudden occlusion of the superior mesenteric artery results in a violent spastic contraction of the portion of the small intestine distal to Treitz' ligament and of the colon to the mid-transverse portion, the area supplied by the superior mesenteric artery. This contracture is apparently due to anoxia resulting from the sudden cessation of arterial blood flow. The blood is drained off by the veins and the involved bowel becomes firm and white. In 4 to 8 hours the musculature becomes fatigued and loses its contractility, and the wall of the bowel gradually becomes soaked with blood. Sudden occlusion of the superior mesenteric vein causes immediate bluish discoloration and relaxation of the entire small intestine.

Although the superior mesenteric artery is not an end artery it behaves as such when suddenly occluded. Only if the infarcted area is small is there enough overlapping of the blood supply to keep the involved wall of the bowel viable. In a dog, if more than 5 cm. of small intestine is deprived of arterial blood, infarction or gangrene will develop in the segment.

The real reasons for arterial and venous thrombosis are obscure. The answer here probably awaits the explanation of the phenomenon of the intravascular clotting which occurs much more commonly in the heart, brain and lower extremities. Alterations in the intima of the vessels may be an important factor.

Clinical Features

In mesenteric vascular occlusion shock is usually more pronounced than in other abdominal conditions. Physical findings include variable degrees of abdominal tenderness, rigidity, distention and the absence of peristalsis, depending upon the duration and extent of the pathologic process. The leukocyte count is usually increased, and there is a relative increase in polymorphonuclear cells.

In those cases in which arteriosclerosis is the main etiologic factor, as the progressive narrowing of the mesenteric arteries occurs the patient may complain of "intermittent intestinal claudication" or "abdominal angina." This aching, gnawing abdominal pain usually comes on 1 or 2 hours after meals and lasts during the intestinal activity of digestion. A patient examined in such a stage may be termed a hypochondriac, because no abnormality will be discovered. As the arterial narrowing increases, thrombosis may occur with resulting acute abdominal crisis. The patient may or may not recover spontaneously.

The variable character of the symptoms and physical findings often leads to an erroneous diagnosis, such as intestinal obstruction, cholecystitis or some other condition. Some authors have stated that it should be possible to make a correct diagnosis preoperatively in 60 per cent of the cases. However, cases have been reported in which a week had elapsed before a serious intra-abdominal lesion was suspected. Such delay naturally increases the mortality rate.

Some observers have made distinct differentiation between arterial and venous occlusion, both clinically and pathologically. I do not believe this distinction can be made in many cases. The surgeon is usually not able to determine what type of occlusion caused the infarcted bowel he is resecting; even the pathologic result may be the same following either venous or arterial occlusion, and the pathologist may likewise be unable to determine where the initial lesion occurred. The presence of generalized arterial disease does not necessarily mean that the mesenteric lesion is primarily an arterial one. It is of utmost importance in evaluating the clinical picture to recognize that an intra-abdominal surgical emergency exists. Further time should not be wasted in laboratory examinations and various studies in an effort to establish an exact diagnosis, which is only of academic interest after all.

PROGNOSIS

The prognosis in mesenteric vascular disease is poor even though the condition is recognized and treated early. At times the condition of the patient is so serious that surgical intervention is impossible. Even if operation is feasible the involvement may be so extensive that adequate bowel resection cannot be carried out with any hope of survival of the patient. In the past the surgical mortality has been uniformly high, ranging from 60 to 95 per cent. The mortality rate for cases in which surgery was accomplished varied from 61 to 70 per cent; in those cases in which no surgery was done the mortality was about 95 per cent. However, the facts have not been as bad as these figures indicate, if one realizes that minor degrees of mesenteric vascular occlusion can occur with little disturbance to the patient; the condition may be unrecognized and full recovery may occur without surgical intervention. It should be emphasized that such an outcome is possible only if a very small area is involved in the pathologic process.

In recent years there has been considerable improvement in the methods of management of these cases, with great reduction in the mortality rate. Whittaker and Pemberton,[4] quoted by Musgrove and Seybold,[5] reported 60 patients with mesenteric vascular occlusion seen at the Mayo Clinic prior to 1938. Only 19 (31.6 per cent) of these patients underwent surgery, and 16 of this group died; the operative mortality was 84.2 per cent. The remaining 41 patients were not subjected to surgery and all died. In 1942 the following statement was printed in a textbook of surgery[6]: "This disease is almost universally fatal. Reports of recovery should be regarded with suspicion." Musgrove and Seybold reported 24 patients who had proved mesenteric vascular occlusion seen at the Mayo Clinic from 1938 to 1948. Of 13 of these patients operated upon, 10 or 77 per cent survived, a surgical mortality rate of 23 per cent. The remaining patients who did not have surgery all died. Thus at that clinic the mortality rate improved from 84.2 per cent to 23 per cent.

TREATMENT

Treatment in this condition depends upon the patient's general condition and the severity of the lesion. As soon as vascular occlusion is suspected a laparotomy should be performed if the patient's condition appears adequate to allow him to withstand the operation. The surgical procedure on the bowel depends upon the extent of the infarction; it may vary from no resection if the lesion is small and the bowel viable, to the most radical resection. The infarcted segment of intestine and mesentery should be resected and a primary intestinal anastomosis made. Experience has shown that exteriorization of the bowel, or enterostomy or cecostomy is futile. A few cases of mesenteric vascular occlusion have been reported (13 or more) in which the bowel was viable at operation; no resection was done and the patients survived. However, it is generally agreed by those who have studied this subject that, unless early removal of the involved intestine is accomplished when the lesion is sufficient to cause gangrene, the mortality rate will be from 95 per cent to 100 per cent. The bowel should be resected if there is the slightest doubt as to its viability, and the resection should be done at least 6 inches from the gross lesion. A very long length of bowel may be removed and the patient still survive. The minimal amount of small intestine compatible with life has not yet been determined.

During recent years two new types of drugs have been used in the treatment of vascular occlusion, namely, the antispasmodic drugs and the anticoagulant drugs. Papaverine has been of much benefit in some cases in releasing the concomitant vasospasm associated with the vascular occlusion.

Extension of the thrombosis and the resulting area of infarction often occurs, even after the gangrenous bowel has been resected. In an effort to prevent this, the use of the anticoagulants, heparin and dicumarol, has been reported by several authors with encouraging results. It seems feasible to recommend the use of these drugs immediately following surgery in dosages that are therapeutically effective.

Other factors which contribute greatly to a lower mortality rate are: (1) better management of the fluid and electrolyte balance, (2) maintenance of nutritional and vitamin requirements, (3) intestinal decompression by intestinal intubation and suction, (4) the free use of whole blood transfusions intravenously and intra-arterially if necessary, (5) the use of antibiotic and chemotherapeutic agents, (6) aggressiveness of the surgeon, and (7) improvements in anesthesia. In extensive vascular occlusion there is severe loss of blood into the bowel lumen and also into the affected bowel wall and its mesentery. In such a case transfusion is imperative.

Report of Cases

Case 1. O. F., a white man, 70 years of age, was seen at 1:00 a.m. at the hospital. The patient had suffered severe abdominal pain about 1 hour after a full evening meal; soon afterwards nausea and vomiting occurred. The pain was generalized and gradually became worse, but it did not become localized. He had a normal bowel movement after the onset of the pain. The patient had been seen by his physician who gave him one-fourth grain of morphine and sent him to the hospital immediately. The morphine afforded very little relief from the pain.

When examined the patient was having severe pain throughout the abdomen. There was tenderness and muscle spasm, both being more marked in the right lower quadrant. Moderate generalized arteriosclerosis was noted. His temperature was 100°F., the pulse rate 60 per minute, and the blood pressure 145/60 mm. Hg. The white blood cell count was 19,500 with 92 per cent polymorphonuclear leukocytes, and the red blood cell count was 4,300,000 with a hemoglobin of 84 per cent. Urinalysis was normal. Rectal examination was negative.

A tentative diagnosis of acute appendicitis was made, and the patient was operated upon within 3 hours after the onset of symptoms. A McBurney incision was made, and upon opening the peritoneum gangrenous small bowel was encountered. This incision was then closed and a right rectus incision made. Exploration revealed mesenteric thrombosis with approximately 2 feet of gangrenous small bowel. This segment of bowel, including 6 inches of apparently normal intestine at either end, was resected and an end-to-end anastomosis done. An enterostomy tube was placed 1 foot proximal to the anastomosis. Pathologic examination revealed acute infarction of the small bowel. Wangensteen suction was started and continued 72 hours. A transfusion of 500 c.c. of whole blood was given. Dicumarol was started and continued in sufficient dosage to keep the prothrombin concentration within 25 and 30 per cent of normal range. Nourishment and fluids were supplied parenterally. Convalescence was entirely satisfactory and the patient was discharged from the hospital 17 days postoperatively. One year and a half after operation the patient reported that he was enjoying good health.

Case 2. An elderly white woman, 77 years of age, entered the hospital because of pain in her face, back and extremities. After extensive examinations, which included the blood count, urinalysis, spinal fluid examination, and blood cultures, a diagnosis of arteriosclerosis, moderate generalized osteoporosis, spinal arthritis, and peripheral neuritis, degenerative type, was made. Nine days after admission to the hospital the patient suddenly complained of severe abdominal pain; she was also nauseated and vomited. Two hours after the onset of symptoms she was examined and was still having acute abdominal pain, with marked tenderness throughout the abdomen and muscle spasm. No peristalsis was heard, and the patient was in a state of shock. Laboratory examinations showed the hematocrit to be 35 per cent, and the hemoglobin 60 per cent; the white blood cell count was 31,000 with 92 per cent neutrophiles. A diagnosis of an acute intra-abdominal condition was made and surgery was advised.

The operation was started at 2:30 p.m. The patient was in such profound shock that no pulse could be obtained; the blood pressure was 80/40 mm. Hg. The anesthetist thought that it was useless to proceed with the operation as her condition was moribund. When the abdomen was opened much gangrenous bowel was encountered, the result of mesenteric thrombosis. Approximately 4 feet of gangrenous ileum was resected and an end-to-end anastomosis done quickly, the operating time being about 1 hour. During the first part of the operation, when the patient's condition was so very serious, all supportive therapy possible was given—oxygen, intravenous fluids, and blood. When the blood pressure was 40/0 mm. Hg an intra-arterial transfusion was started. Improvement in the patient's condition was dramatic, and at the completion of the operation her blood pressure was 80/40 mm. Hg and her condition seemed very good. During surgery and the immediate postoperative period, from 2:30 p.m. to 6:00 p.m., an interval of 3½ hours, the patient was given the following fluids:

	Operating Room	*Recovery Room*
Intravenously	500 c.c. 5% dextrose in normal saline	500 c.c. 5% dextrose in normal saline 1,000 c.c. 10% I.S.C. potassium/D.W.
Intra-arterially	500 c.c. whole blood	500 c.c. whole blood

Thus, a total of 3,000 ml. of fluids was given directly into the circulation of a 77-year-old woman within a period of 3½ hours without ill effect.

The pathologic examination of the removed specimen was reported as being gangrenous bowel due to mesenteric thrombosis of an arterial type.

Review of Cases at Doctors Hospital

During a 13-year period at Doctors Hospital, Washington, D. C., a diagnosis of mesenteric vascular occlusion was made in 19 cases. In 11 the diagnosis was confirmed; 7 cases were diagnosed at operation and 4 at necropsy. In 8 cases the diagnosis was made on symptoms and signs only; therefore, it might be questionable. Of the 11 cases definitely established, the operative rate was 63.6 per cent; 3 of these patients died, making a mortality rate of 42.8 per cent.

Summary

Nineteen cases of mesenteric vascular occlusion which occurred in Doctors Hospital, Washington, D. C., during a 13-year period are reviewed. Two consecutive, successfully treated cases are presented in detail.

The diagnosis and treatment of this condition have been discussed.

In the treatment, emphasis is made upon the following: (1) early diagnosis, (2) immediate surgical intervention after a tentative diagnosis is made, (3) rapid and adequate removal of the damaged bowel, unless there is conclusive evidence that it is viable, (4) the use of blood transfusions, and especially intra-arterial transfusions, when indicated, (5) a postoperative regimen of continuous gastrointestinal decompression and supportive parenteral therapy, (6) immediate heparinization and delayed dicumarol therapy, (7) the use of an antispasmodic agent and antibiotics, and (8) the importance of operation even in apparently hopeless cases. With such a program of treatment an even lower mortality rate in this disease is expected.

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REMOVAL OF COSMETIC DEFECTS BY DERMABRASIVE SURGERY

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FROM a cosmetic point of view there is nothing that produces as much anguish as cosmetic defects on the exposed surfaces. Particularly is that true of facial scarring. In addition to its physical affects its psychologic aspects are of some consequence, for not only can it produce mild disturbance of the psyche, but in some especially susceptible individuals it may produce severe psychoses. Therefore, any procedure that reduces to a minimum these cosmetic deformities and is both successful and relatively harmless is of infinite value. Such a method is now available.

Cosmetic defects amenable to dermabrasive surgery are:

1. Pitted scars:
   a. Smallpox
   b. Chickenpox
   c. Acneform lesions
   d. Furuncles
2. Hypertrophic and deformed scars:
   a. Post-traumatic
   b. Acne keloid in white patients
3. Nevi:
   a. Multiple intra-epidermic nevi
   b. Nevus flammeus
   c. Nevus unius lateralis
4. Pigmentations:
   a. Chloasma
   b. Lentigenes
5. New growths:
   a. Keratoses
   b. Adenoma sebaceum
   c. Verrucae
6. Miscellaneous:
   a. Tattoos
   b. Rhynophyma
   c. "Enlarged pores"
   d. Milia

HISTORY

Modern abrasive surgery was ushered in by the effective methods of Kromayer,[1] who used burrs and tiny cylindrical knives powered by ordinary dental motors. Prior to that various ingenious but crude methods were used which included abrasion with pumice, marble dust, and scarification.

Kromayer's methods were not widely used and for a time cryotherapy with CO_2 introduced by Karp, Nieman and Lerner[2] in 1939 and modified by many others was quite popular. However, this method, although of value, was never adequately successful.

In 1947 Iverson[3] introduced his method of using carpenter's sandpaper, grit 0-00, wrapped around a 3-inch roll of gauze bandage for the removal of traumatic tattoos of the face. His results were spectacular. He performed the operation under general anesthesia. A year later this method was used for the leveling of acne pits by McEnitt. He modified the method by the use of motor-driven abrasive disks for lesions in facial contours which were inaccessible to the sandpaper. Rosenberg[4] and Strakosch[5] applied the method to tattoos and freckles with equally gratifying results.

The latest method in use today was introduced by Kurtin[6] in 1952 at a meeting of the dermatologic section of Mt. Sinai Hospital in New York. He substituted local anesthesia, using ethyl chloride, and therefore was able to perform the

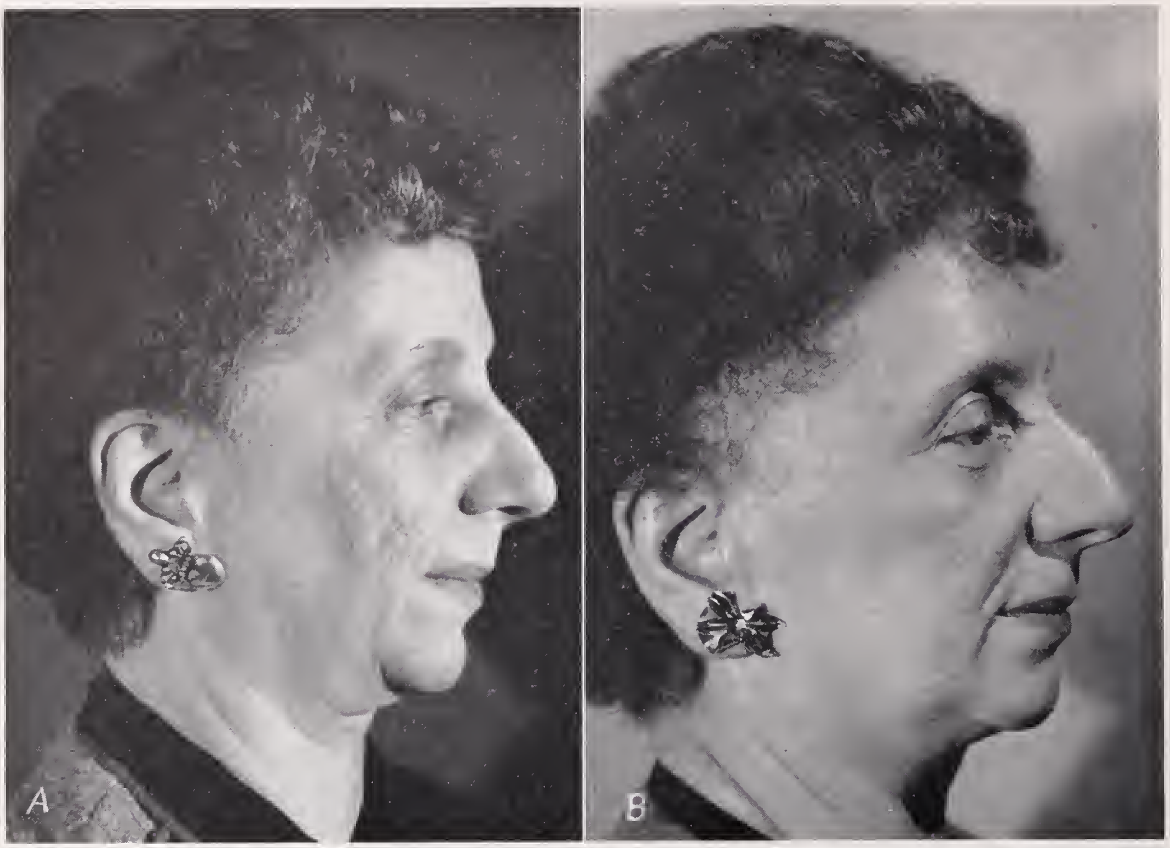

FIG. 1. (A) Post-acne scars. (B) Results after 4 dermabrasive operations.

operation as an office technic. He[7] later published the results of his operation in 1953 and included at that time the results obtained in traumatic scars, wrinkles, keloids, superficial epitheliomata, sebaceous adenomata, and other conditions, as well as acne pits. In 273 cases he reported that healing occurred without complication in all but 1 case. He was satisfied with his results in all of the patients treated and reported 60 to 80 per cent improvement in all cases. Kurtin is quite a master at his procedure. I saw him perform many such abrasive operations and was able to follow a few for a short time. I believe that his estimation of 60 to 80 per cent is conservative. Since Kurtin's original paper several others have appeared by other authors who basically agree that the Kurtin operation is all that it claims to be.

PROCEDURE

The basic equipment was designed by Kurtin and consists of:

1. Steel brushes of various widths and gauges.
2. A high speed electric motor capable of 12,000 revolutions per minute (Kurtin planer).
3. Powerful air blower (to hasten evaporation of ethyl chloride).
4. Ethyl chloride (coarse spray bottles).
5. Chilling packs containing 5 per cent diethylene glycol in water.

The area to be treated is first cleansed with Phisohex and then chilled, using the packs which have been kept in the freezing compartment of a refrigerator until the liquid in them is slushy. These chilling packs are maintained in place for about 20 minutes. When the face is thoroughly chilled, a drop of castor oil is placed in each eye and the eyes covered with squares of gauze. A cotton pledget is then placed in each ear. These two latter procedures are to avoid irritation of these parts from the ethyl chloride spray.

The parts to be treated are then blocked off in areas of about 2 to 3 square inches. These areas are sprayed with ethyl chloride while the blower nozzle is directed at the operative site. When the area is frozen solid, the area is planed. The ethyl chloride serves a dual purpose. In addition to acting as a local anesthetic it solidifies the skin, making it easier to operate. After one area has been planed, adjacent areas are then treated in similar fashion until the entire site has been covered. Each additional site is planed so that there is some overlapping in order to produce a more even result. In planing, the revolving brush is placed horizontal to the skin and is moved at right angles to the plane of rotation. Planing in the line of rotation may produce grooving.

In planing the face the entire face can be done at one sitting, and in order to avoid sharp delineations it has been found that the planed areas can be blended into the temples and along the angle of the jaw and chin by planing more superficially in these locations and gradually feathering the strokes toward uninvolved areas.

After the operation has been completed and frank bleeding has stopped, the areas are covered with 3 by 3-inch gauze pads which are loosely held to the skin with scotch tape.

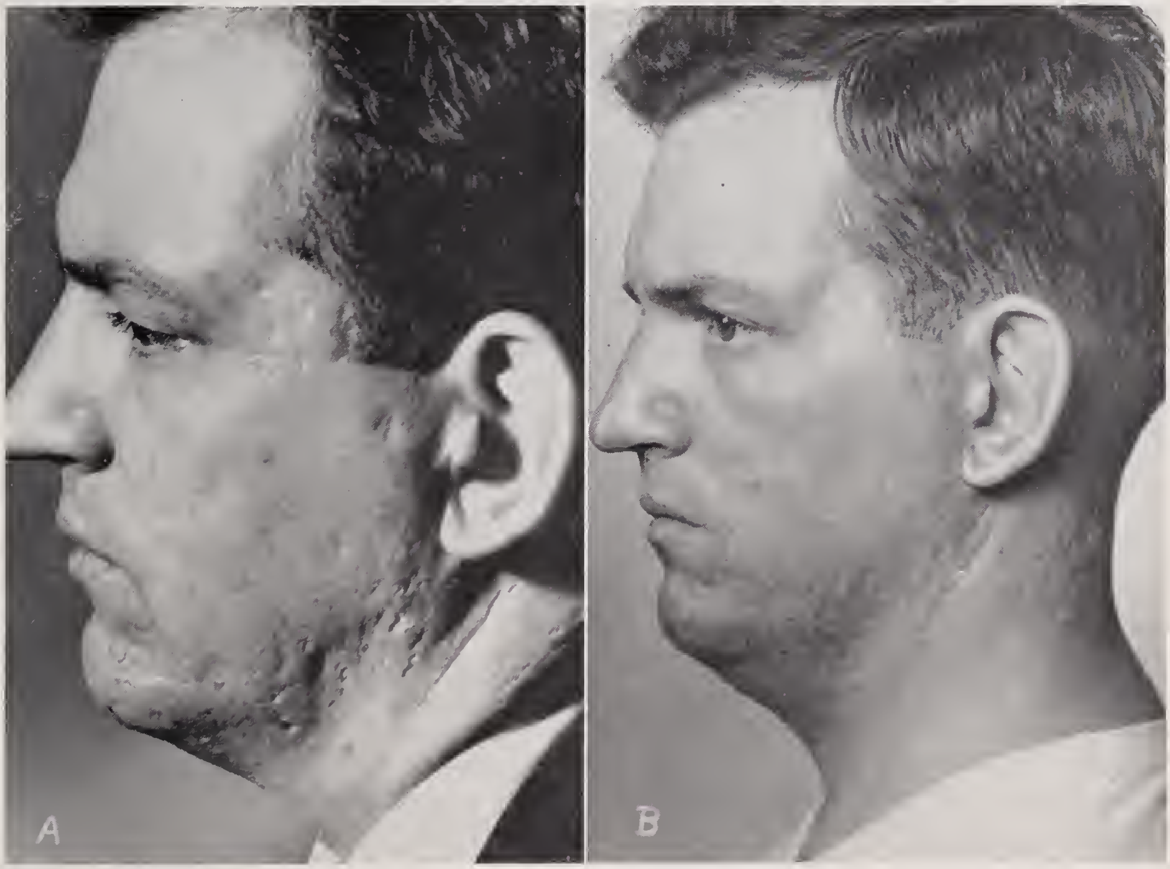

FIG. 2. (A) Scars resulting from cystic acne. (B) Appearance after 2 dermabrasive operations; improvement better than 70 per cent; 2 more operations contemplated.

POSTOPERATIVE MANAGEMENT

The patient is told to change this dressing at least 3 times a day or more often in order to keep the dressing from sticking. It is good practice to have these dressings changed at least once during the night for the same reasons. As soon as most of the oozing has stopped the patient is instructed to leave the operative sites undressed. Kurtin has found that no postoperative medication is necessary. I have felt, however, that in some patients a mild analgesic and a sedative may be indicated, varying in potency from simple aspirin to $\frac{1}{2}$ grain of codeine. In only 1 case was something stronger used. Gentle washing with soap and warm water is started on the fifth day. In 7 to 10 days the crusts have completely separated.

Following planing and as soon as the skin thaws, capillary bleeding occurs accompanied by a burning sensation. The capillary bleeding and the burning abate in about 20 minutes. The operative sites are then dressed and the patient is allowed to go home. In about 24 to 48 hours the serous oozing stops and the crusts form. At this time the patient stops dressing the operative sites. In about 7 to 10 days the crusts separate, aided in the process by gentle washing. The skin is then deep pink and in many cases somewhat scaly. It is, however, quite soft and pliable and not scarred. Occasionally, when there are a group of deep pits separated from each other by trabeculae, the planing will produce a wide pit where many existed before. However, the area fills in quite satisfactorily. If a large area is planed on the forehead or around the eyes there may be considerable edema of the eyelids, sometimes sufficient to close the eyes. This rarely lasts more than a day or two and can easily be controlled with iced witch hazel packs. The erythema mentioned above lasts a variable length of time and disappears. Sufficient healing occurs to permit additional planings at 4- to 6-week intervals. Repeated planings have been found necessary in almost all cases.

SEQUELAE

The constant sequela is the erythema which varies in duration in different patients. In some patients it disappears within a week after the crusts separate, and in some it may persist for as long as 6 weeks. In only 1 case has it persisted longer than 6 weeks. This was a diabetic whose diabetes was constantly out of control. Here the operative area was the sternum. In susceptible individuals the erythematous site will become hyperpigmented similar to that following a sunburn, but in all cases this pigment gradually absorbs. An occasional sequela is the appearance of small milia. These are due to blockage of the sebaceous lobules which by planing had their drainage orifices destroyed. It is of little consequence and must be expected. It is simple to express them. It is, however, seldom necessary since the subsequent planing will eliminate them. In only 1 case was there sufficient bleeding to cause trouble. This consisted of prolonged capillary bleeding for 3 days and was finally stopped by the use of iron subsulfate solution. Subsequent planing in this case was preceded by adequate administration of vitamin K and gave no trouble. In another case fear of the procedure was so great that no further operation was done.

In no case was there any secondary infection on the face, but in 1 case, in which the chest was the operative site, a superficial impetiginization occurred which was easily controlled with oral antibiotics.

OTHER CONSIDERATIONS

Kurtin[7] and Rein and Blau[8] indicate by their studies that the planing removes the pilosebaceous units. These units are the sites of acne lesions, and since these apparati are removed, one would expect that this operation would also be a good method of treating acne. This presumption is true. After planing, the operative sites, for the most part, remain clear of acne lesions, while in the unoperated areas acne lesions continue to appear. In 1 case I was unable to change the course of the acne by all available means in spite of constant vigorous therapy, but planing was effective and no further lesions appeared in the planed areas.

It was found necessary to operate on most of the patients 3 to 4 times. In a limited number a fifth planing was performed. The only criterion as to the number of times the planing should be done depends on evaluation of the situation. An endpoint is reached when, in the opinion of the operator, the results to be obtained from further planing are unjustified by the discomfort of the procedures. Here the wish of the patient must be minimized, because many patients wish to continue until every last pin-point depression has been eliminated.

RESULTS

In my series of 171 planings, at the time of writing, with the exception of 3 patients, all were perfectly satisfied with the results (figures 1, 2, 3). One patient developed a violent fear, bordering on hysteria, 1 patient thought that improvement after the first planing was insufficient and therefore stopped treatment, and 1 patient had several pits with perpendicular sides which were not eliminated by planing but had to be excised first and the resulting scar leveled by planing.

No patient was unimproved, and improvement was far in excess of that which was obtainable with any previously used method.

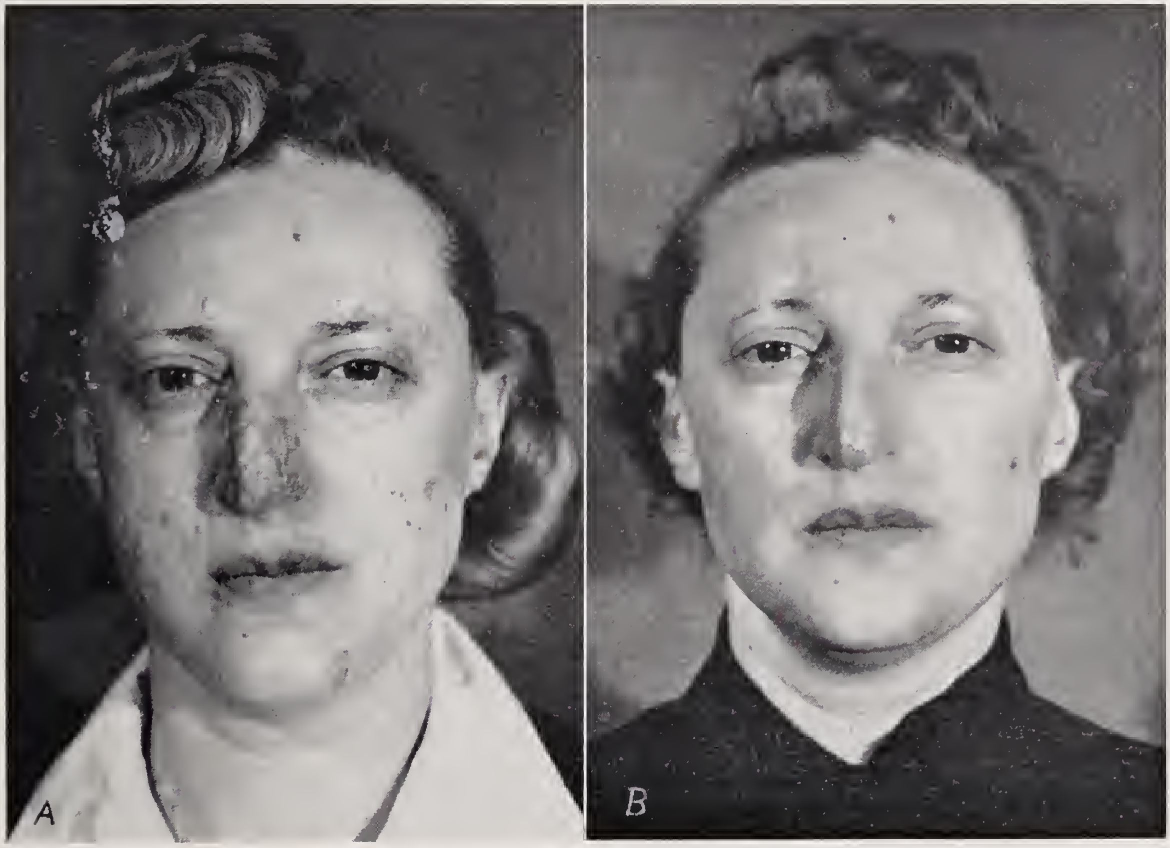

FIG. 3. (A) Lupus erythematosus of 15 years' duration. (B) After 1 dermabrasive operation; all lupus erythematosus lesions destroyed by dermabrasion. No claim is made that this is a cure for the disease but only a means of removing the unsightly cosmetic defects. The disease in this case is kept under control by chloroquin.

Abrasive surgery stands in the center of the therapeutic stage since "nothing in the field of medicine or surgery can closely approximate its beneficial effects" (Blackledge,[9] 1953).

Just as in everything else in medicine, abrasive surgery is not perfect, but since it produces improvement in every case no patient should be discouraged. It is interesting to note that in a survey conducted by Rein and Blau[8] 97 physicians with a total of 2,206 cases which had been followed sufficiently long enough for evaluation, with a few exceptions, felt that the results were extremely satisfactory.

CONCLUSION

Abrasive surgery is the method of choice for treatment of pitted scars produced by acne or smallpox. The greatest cause for failure of improvement is due to the fear of the operator that he will produce further scarring. This fear is lost only by experience. One can plane down almost to subcutaneous fat and still have non-cicatricial healing. Each repeated planing can be expected to give improved results, since more pits are eliminated.

The method is also amazingly effective in removing nevi, post-traumatic scars, and superficial tumors, such as sebaceous adenomata.

Here is a procedure which produces extremely satisfactory results in heretofore almost hopeless situations. It not only is a great boost to the morale of the patient, but it is also gratifying to the operator who achieves the satisfaction of a job well done.

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GRENZ RAY THERAPY: A NEW AND EFFECTIVE TREATMENT FOR PSORIASIS

JACK L. DERZAVIS, M.D.
Washington

IT HAS long been an established fact that superficial X-ray treatment is an effective measure for clearing lesions of psoriasis. However, repeated exposure to such radiation and its cumulative effect prohibit its use in such a chronic and recurrent disease unless the dosage is limited to infrequent and carefully measured safe courses. Excessive exposure to conventional superficial X-radiation eventuates in atrophy, telangiectasis, and chronic premalignant ulcerations.[1]

These disadvantages may be avoided and beneficial effect obtained by the use of grenz (borderline) rays instead of conventional X-rays. Grenz rays are supersoft X-rays produced by a special apparatus operating in the range of 10 kilovolts through a beryllium window tube emitting radiation of the order of 2 angstrom units.

Grenz rays are absorbed mostly in the first 3 millimeters of tissue, that is, within the epidermis and upper cutis, and the amount reaching the deep network of blood vessels needs scarcely be taken into account. Therefore, larger quantities can be applied to the skin and the therapeutic effectiveness increased. Because these rays are mostly absorbed within the skin one can obtain effective therapeutic dosage and yet avoid temporary and/or permanent injury to important organs and to glandular apparatus, such as hair roots, sebaceous glands, sweat glands, testes, and eyes. Also, since it is impossible, or at least very difficult, to produce epilation, the use of grenz rays is a method of choice in the treatment of dermatoses of the scalp.

During the past year I have been treating superficial dermatoses, particularly psoriasis, by means of grenz rays, and I have found that grenz rays are more effective in clearing psoriasis than any other modality. Indeed, recalcitrant psoriasis of the hands and feet, which responds poorly to all other forms of therapy, clears rapidly under grenz ray administration. Similarly, many of the thickened psoriatic plaques and generalized psoriasis in which ointments, lotions,

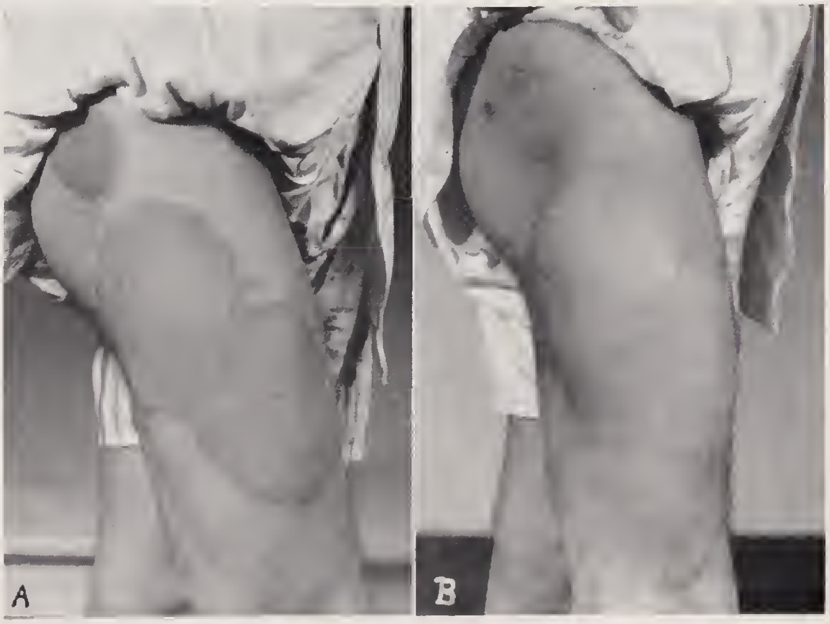

FIG. 1. Case 1. (a) Before grenz ray therapy; (B) after grenz ray therapy. Slight temporary hyperpigmentation remains.

ultraviolet light, and photosensitizers fail to induce clearing respond to grenz ray exposures.

Report of Cases

Case 1. Mr. G. F., aged 37, had plaque-type psoriasis involving most of his skin for 12 years. During the past 10 years it had become progressively worse, requiring direct exposure to intense sunlight at Miami Beach for a minimum period of 3 weeks each winter (figure 1-a). This became a rather unpleasant, expensive procedure, since to achieve results at least 4 hours' exposure a day was required. The cost became prohibitive. The patient received 13 exposures of 100 roentgens of grenz rays during a 7-week period to all lesions, with complete clearing (figure 1-b). After 2 treatments many of the leathery, tight lesions became pliable and comfortable. To date, after 6 months, there has been slight recurrence in a few of the previously involved areas, but the lesions are not significant enough to require treatment at this time.

Case 2. Mr. E. L., aged 58, a sign painter, had psoriasis of the hands and ears for 15 years. Recently the lesions on the dorsal surfaces of the hands became so hard and tight that working with them became difficult and painful (figure 2-a). Various proprietaries and prescriptions, frequently beneficial in psoriasis, were of no avail. Six weeks of grenz therapy resulted in complete clearing (figure 2-b). A total of 9 doses of 100 roentgens each were administered. He returned 2 months later with new lesions involving the palms, but the dorsal surfaces of the hands remained clear. Grenz ray treatment to the palms resulted in clearing in 4 weeks.

Although grenz ray therapy should not be considered a cure for psoriasis, it may be generally stated that it is effective and safe, and the duration of clearing between recurrent attacks appears to be prolonged after such treatment.

Serious injury due to overdosage, such as ulcers, severe vascular damage, sclerosis of the connective tissue and keratoses do not occur. It is possible at 1 treatment to expose the entire body, since damage to the blood-forming organs is not present and since roentgen ray sickness never appears. The cumulative effect with suitable doses is minute. Grenz rays constitute no danger to the treating physician or technician and there is no possibility of roentgen ray shock.[2]

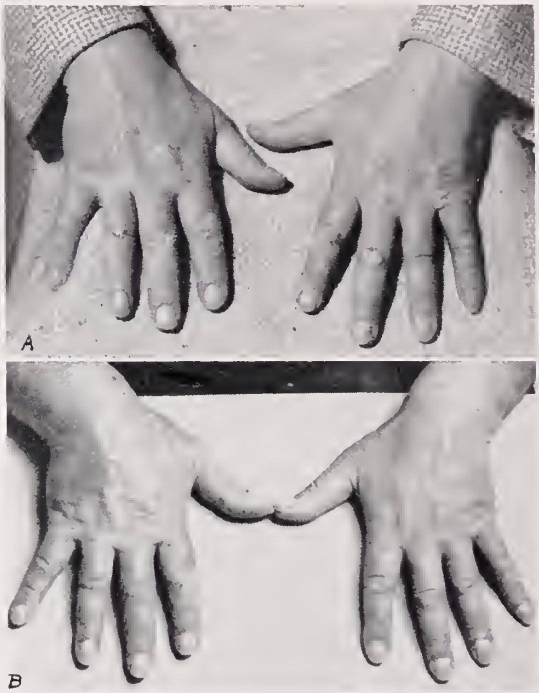

FIG. 2. Case 2. (A) Before grenz ray therapy. Note painful fissures. (B) After grenz ray therapy.

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President's Page

CURRENT MEDICAL PROBLEMS AND THE DOCTOR

As socio-economic disciplines become more and more emphasized in the practice of medicine, so must the physician interest himself in all types of Federal and state legislation, organizations dealing in medical care, and organizations which discuss medical-social programs. Every physician has a large stake in these activities since they may affect the well-being of his patients and his own independence. A coöperative and advisory attitude, however, is our role.

The physician can do much at the local level in discussing our problems, so that his delegates to the AMA can express the opinions of the local organization.

The recent meeting of the House of Delegates in Miami was an example of free discussion and exchange of opinions as expressed by the various State Societies. Many of the proposals by delegates originated at local levels, but have national implications where medical policy is concerned. It was especially interesting to hear the presentations for and against the proposed Federal Reinsurance legislation. The past opinion expressed by the AMA in regard to this issue remains unchanged.

Preston A. McLendon

Editorials

SEMINAR ON DISEASES OF THE NERVOUS SYSTEM

Diseases of the nervous system are attaining ever-increasing importance. Some diseases of the nervous system are decreasing in incidence because of therapy of primary diseases. Syphilis is a good example of this.

Neurological diseases constitute an appreciable segment of man's ills. There are approximately one million epileptics in this country, several hundred thousand instances of multiple sclerosis and of Parkinsonism and of poliomyelitis. When there is added to this the greater incidence of vascular diseases of the brain which is inherent in our population of increasing age, the importance of neurological discipline is even more obvious.

Fortunately, the fields of clinical neurology and neurosurgery have continued to develop and have been reinforced by the strong development in investigative neurology. Academically there is a steady increase in the numbers of departments of neurology in medical schools, and these are the fountainheads from which spring the future neurologists and the further development of the field. The medical neurologist has become more appreciated by his colleagues and he has earned their respect by his judicious handling of the problems of epilepsy and other neurological diseases.

The steady advance in the number of neurologists has actually proven advantageous to the neurosurgeon, who finds himself less and less required to handle medical neurology problems. The introduction of medical neurologists into a community soon aids the neurosurgeon by increasing the number of surgical cases that come to him. In this manner both the neurologists and the neurosurgeons can do the kind of practice they are each best suited for.

Investigative neurology has proven fascinating and has developed on many fronts. The close liaison between neurology and biochemistry, neurology and pharmacology has extrapolated the ancient traditions of neurology with anatomy and pathology, and the more recent one of neurology with physiology. The field of neurology has certainly shown itself able to develop and adapt itself to the greatest advances in other fields.

The Medical Society of the District of Columbia is one of the most progressive medical societies in these United States. It is high in primary interest in the development of scientific medicine, and its programs, by their excellence, have always fostered and furthered the development of the physician. The Society has always shown a devout interest in the field of the nervous system, and it is in accord with its progressive policy that this year's Midwinter Seminar is devoted to the central nervous system.

This year's program on February 15, 16 and 17 will be on the advances in neurology and neurosurgery. It is not often appreciated that neurology is a therapeutic discipline. For this reason, the Seminar on neurology and neurosurgery has been devoted primarily to therapy. The evening session on medical neurology will be opened by Dr. A. L. Sahs, Professor of Neurology at the State University of Iowa. Dr. Sahs is well known in neurological circles for his expertness and authoritative viewpoints in the handling of the various meningitides, and this will be the topic of his talk.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

Fourth Midwinter Seminar

OF

THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

February 15, 16 and 17, 1955

MEDICAL SOCIETY BUILDING 1718 M Street, N.W.

RECENT ADVANCES IN CLINICAL DIAGNOSIS AND MANAGEMENT OF DISEASES OF THE NERVOUS SYSTEM

In view of the great importance of diseases of the nervous system, the rapid advances in diagnostic technic, and the improvement in patient care from both the neurological and neurosurgical standpoints, the Program Committee is happy to present this Seminar.—Louis K. Alpert, M.D., *Chairman, Program Committee; Clinical Professor of Medicine, George Washington University School of Medicine.*

TUESDAY EVENING, FEBRUARY 15, 8 P.M.

Introductory Remarks

Preston A. McLendon, M.D.

President, The Medical Society of the District of Columbia

Francis M. Forster, M.D., *Moderator*

Professor of Neurology and Dean of the Georgetown University School of Medicine

Modern Treatment of Meningitis (20 minutes)

Adolph L. Sahs, M.D.

Professor and Head of the Department of Neurology, State University of Iowa College of Medicine

Modern Treatment of Epilepsy (20 minutes)

G. Bushnell Smith, M.D.

Instructor in Neurology, Georgetown University School of Medicine

The Role of Physical Medicine and Rehabilitation in Neurological Disorders (20 minutes)

Charles D. Shields, M.D.

Professor of Physical Medicine and Rehabilitation, Georgetown University School of Medicine

Modern Treatment of Parkinsonism (20 minutes)

Desmond O'Doherty, M.D.

Assistant Professor of Neurology, Georgetown University School of Medicine

Questions and Answers

WEDNESDAY EVENING, FEBRUARY 16, 8 P.M.

Francis M. Forster, M.D., *Moderator*

ROLE OF ARTERIOGRAPHY IN DISEASES OF THE NERVOUS SYSTEM (20 minutes)

James Peter Murphy, M.D.

Associate in Neurological Surgery, George Washington University School of Medicine

NEWER LABORATORY STUDIES IN MULTIPLE SCLEROSIS (20 minutes)

Elizabeth Roboz, Ph.D.

Associate Professor of Biochemistry, Georgetown University School of Medicine

THE BIOCHEMISTRY OF EPILEPSY (20 minutes)

Donald B. Tower, M.D.

Chief of Neurochemistry Section, National Institutes of Health, PHS

THE ROLE OF ISOTOPES IN NEUROLOGY (20 minutes)

G. Milton Shy, M.D.

Clinical Director, National Institute of Neurological Diseases and Blindness, National Institutes of Health, PHS

QUESTIONS AND ANSWERS

THURSDAY EVENING, FEBRUARY 17, 8 P.M.

Francis M. Forster, M.D., *Moderator*

SURGICAL TREATMENT OF EPILEPSY (20 minutes)

A. Earl Walker, M.D.

Professor of Neurosurgery, Johns Hopkins University School of Medicine

EXTRADURAL AND SUBDURAL HEMATOMAS IN ADULTS (20 minutes)

John P. Gallagher, M.D.

Assistant Professor of Neurosurgery, Georgetown University School of Medicine

SUBDURAL HEMATOMAS IN CHILDREN (20 minutes)

Harold Stevens, M.D.

Associate Professor of Neurology, Georgetown University School of Medicine

Jonathan M. Williams, M.D.

Assistant Clinical Professor of Neurological Surgery, George Washington University School of Medicine

NEUROSURGICAL TREATMENT OF TIC DOULOUREUX AND INTRACTABLE PAIN (20 minutes)

James W. Watts, M.D.

Professor of Neurological Surgery, George Washington University School of Medicine

QUESTIONS AND ANSWERS

The program on neurosurgery will be opened by Dr. A. Earl Walker, Professor of Neurosurgery at Johns Hopkins University School of Medicine, and his talk that evening will be on the surgical treatment of epilepsy, an area in which he has won great distinction.

The program on advances in diagnosis will highlight some of the research developments in the biochemistry of spinal fluid and the evaluation of newer biochemical studies on epilepsy. Also, arteriography will be thoroughly reviewed.

Francis M. Forster, M.D.
Professor of Neurology and Dean of
Georgetown University School of Medicine

ARE THERE TOO MANY MEDICAL MEETINGS?*

Medical meetings, like medical papers, journals and books, are necessary, but are there too many medical meetings? Yes, emphatically yes! Like medical papers and journals, medical meetings—local, state, regional, sectional, and national—are quite overabundant. But here the similarity between medical meetings and medical papers and journals stops.

You have a choice in disposing of journals and other medical literature that come to your desk; you may read them, file them, or "wastebasket" them, and no one but yourself will know the difference. But with medical meetings it is quite different. We physicians definitely have a moral and community responsibility, particularly on the local, state, or county level, to attend these meetings. Much planning by our fellow physicians, and much of their valuable time, just as valuable as yours, has gone into their preparation. The least we can do is to show our good manners to the speakers, and our faith in the ability of the program committees, by attending them. Often the subject will not be to our liking, perhaps not in our specialty, but certainly all of us can gather some knowledge outside of our own field without harm.

In my travels throughout the country, I have been astounded at the attendance at meetings in the various states I visited. In San Francisco at the American Medical Association meeting in June, 1954 there were 12,063 physicians registered, and of this number the single largest field represented was general practice, with a total of 2,736; second, with a total of 1,766, was the field of internal medicine. If we stop to consider that of the 1,766 registered as internists, as many as 30 per cent were probably not Board members, but physicians doing general practice without obstetrics and minor surgery, we might honestly add 529 additional physicians to the 2,736, making a total of 3,265, or approximately 27 per cent of the total attendance at this national scientific meeting. Here lies a clue to more and better attendance at our local meetings. "Beam" the program for the specialist if you wish, but "slant" the presentations in such a manner that the general physician will be eager to attend in order to learn more about that particular specialty: how to make a more accurate diagnosis, what medical procedures he can carry out in his own office, and when to refer his patients to a specialist.

On my recent trip to Columbus, Ohio, where I presented a paper before the Ohio Academy of General Practice, I was told that over 600 members of the Academy, general physicians, were registered at that meeting. The Ohio Academy of General Practice has a little over 1,200 members. I wonder if any here know of a specialty group with 50 per cent or more of its members attending their meetings.

In our own District of Columbia Chapter of the American Academy of General Practice, at regular meetings our attendance will always come up to 40 to 60 per cent, and during our one-day annual scientific session our member attendance has been over 80 per cent. I mention this to prove my point, that the general physician wants more postgraduate education, seeks more education, and if the various medical societies and medical schools will direct more papers to him, attendance at their meetings will improve.

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* Read before the meeting of the George Washington University Medical Society in Washington, D. C., November 17, 1954.

Another very important and highly significant factor, which you all probably realize, is the unique position in which the Washington Metropolitan Area finds itself. We are neither state nor county; we are closely bound geographically within 20 square miles; and yet within this small radius are packed 3 medical schools, the National Institutes of Health, the U. S. Naval Medical Center, Walter Reed Army Hospital and School, and many other centers of medical learning and education. I believe that this is the only section in the country where so many medical facilities are so close to the practicing physician. He cannot attend them all.

What is the answer? I do not know if I have the answer, but I should like to suggest the following. For many years we have followed the custom whereby each and every medical school and medical society formulates its own programs. On many occasions two programs of an allied nature will be held the same night or same week or month. Isn't this a wasteful practice? I should like to see a council established, which would be comprised of members of the District of Columbia Medical Society, the George Washington University Medical Society, the faculty of Georgetown and George Washington Universities, and any other educational group that might wish to enter into this combined programming council. It would be the job of this council to evaluate the speakers and scientific assemblies to be presented throughout the year. Each program would be sponsored by the member organization of the council in rotation, and there would be no conflict in the program schedule. Members of the various organizations would support and attend the program even though sponsored by another group.

One last point I wish to leave with you tonight. Some of you will agree that there are times when a program committee is overwhelmed by a "big name" in medicine or surgery. The speaker may be a "big name," but he may have a poor and dull delivery. This is a fatal error in many programs. Give the "little name" physician a chance to speak, if he can present his topic clearly and interestingly and has something worthwhile to say. We of the American Academy of General Practice have unearthed excellent, stimulating and interesting "little name" speakers.

I. PHILLIPS FROHMAN, M.D.
Vice Chairman, Section on General Practice, American Medical Association

FIFTEENTH ANNUAL CONGRESS ON INDUSTRIAL HEALTH

On January 25–26, the Fifteenth Annual Congress on Industrial Health will take place at the Shoreham Hotel in Washington. The Council on Industrial Health of the American Medical Association is happy to share sponsorship on this occasion with the Medical Society of the District of Columbia. Although there are few industrial physicians in the conventional sense in Washington, there are, however, a sizable number who have a stake in the further development of health and medical care plans for industrial workers. In any case, this conference is intended to provide an opportunity for medicine, labor, management and Government to exchange views. It also points up the need for clearer understanding of motivations as between the industrial physicians, private practitioners and community health services.

A special effort is made at these conferences to attract attendance from state medical societies and from the professional societies directly concerned. A number of agencies in Federal Government are prominently engaged in the industrial health field and the selection of Washington as a meeting ground provides an opportunity to observe these workings at closer range.

This Fifteenth Congress is primarily concerned with the need for freer communication. The opening general session will discuss the role of medicine in an industrial society, both in terms of newer technics and social consequences. The Council on Industrial Health regards this general area as of vital concern to medicine and is asking on this occasion the advice of management, labor and official agencies.

The balance of the time will be devoted to group discussion. One such group will be concerned with more effective use of industrial health as a major factor in community health. In so doing, especial attention will be paid to a reappraisal of the present health status of the working population and what is needed by the associated professional groups to do a better job. Also in consideration of the rapidly broadening area of negotiated health benefits, this group will explore the relations between industrial medicine and the economics of medical care and will attempt to determine if it is desirable at the present time to set up some form of joint agency intended to advance industrial health.

Another group discussion will look searchingly at the impact of the atomic energy industry on community life. There are pending decisions of great moment relative to the selection of sites for atomic energy reactors. There will be health problems associated with normal operation as well as the possibility of accidents and disaster. Perhaps of more widespread significance will be the use of isotopes in industry, in radiochemical processing, and in medical practice. The record of the Atomic Energy Commission so far suggests that the transition from Government to private control will take place with clear understanding of the industrial and community health aspects.

The third panel will consider the challenge of occupational disability. Involved are a reappraisal of Workmen's Compensation in terms of the rising importance of rehabilitation and a survey of the appropriate role which physicians should occupy in this area, both as professional groups and as citizens in an industrial society.

A prominent labor leader has recently said, "We know that eventually labor and the medical profession must work together." The ways of working together with management and with labor are not always clear, but efforts such as this Congress may supply some clues. Certainly physicians in the Washington area are cordially invited to participate.

CARL M. PETERSON, M.D.
Secretary, Council on Industrial
Health, American Medical Association

In and Out of Focus

BY THE OBSERVER

AMA Launches Another Study Some of the delegates attending the meeting of the House of Delegates in Miami in December were heard to grumble that the sessions were unusually dull. Whether or not the majority of delegates agreed with this, the fact remains that there was little to show for the House's deliberations. Action on all "touchy" subjects was deferred until a later date. Yet the meeting had its interesting moments.

Mrs. Oveta Culp Hobby, Secretary of Health, Education and Welfare, made what seemed to your Observer a very conciliatory address in which she endeavored to placate the fears and to win the support of the delegates for President Eisenhower's reinsurance proposal. In the course of her address, she spelled out in detail the manner in which reinsurance would work, apparently in the belief that if physicians thoroughly understood the proposal, they would be less hostile. Illustrative of Mrs. Hobby's approach are the following excerpts from her address:

> "We have agreed, for example, that the system of voluntary health insurance is an effective mechanism through which the majority of Americans can help pay their medical care costs. We are on common ground in the objective of strengthening and supporting the healthy growth of this system.
>
> "The President has proposed a system of health reinsurance which, in our opinion, would further this mutual objective. . . . In brief, despite the remarkable gain in the number of people having some protection from prepaid insurance and the increase in insurance benefits, the dollar gap between total private expenditure for medical care and that part paid for by insurance continued to widen. . . .
>
> "The health reinsurance proposal does offer the opportunity to provide more people with health insurance and to provide better health insurance. It offers this opportunity to the 30 million people not now covered but who can afford to purchase voluntary health insurance. And it offers the opportunity for improved coverage for a sizable segment of the 99 million who now have some health insurance."

To substantiate her statement in regard to the "dollar gap" she pointed out that in 1948 the total private expenditures for medical care amounted to approximately 7.2 billion dollars. By 1953 it had risen to 9.9 billion dollars. Private expenditures, she pointed out, included expenses for physicians' services, hospitalization, drugs, nurses, dental care, and the like.

In 1948, approximately 61 million persons had some form of voluntary health insurance. This increased to approximately 99 million by 1953. However, whereas in 1948 6.6 billion dollars of the total medical care expense was not covered by voluntary health insurance, by 1953 approximately 8 billion was not covered, the increase in private medical bills not covered by insurance being 1.4 billion dollars.

Mr. Edwin J. Faulkner, President, Woodmen Accident and Life Company, of Lincoln, Nebraska, and Past President of the Health and Accident Underwriters Conference, who followed Mrs. Hobby, expressed opposing views:

> "The trifling volume of health reinsurance business now being done reflects not inadequate reinsurance facilities in the private market, but an absence of need for reinsurance. In point of fact, establishment of a Federal Health Reinsurance fund would bring Government into direct competition with private reinsuring companies that are serving the market adequately. The proviso that Federal reinsurance will not be offered when private reinsurance is available at comparable terms and rates means little when it is remembered that the Federal plan would be capitalized with public moneys, initially subsidized for operating expenses, and would pay no taxes. . . .
>
> "Those who oppose the establishment of a Federal Health Reinsurance plan believe it would raise false hope for a more rapid expansion of health insurance while contributing nothing to the realization of that hope. Government reinsurance of health insurance plans would introduce no magic into the field of financing health care costs. . . . Reinsurance does not increase the ability of the insurer to sell protection to the unwilling buyer. Reinsurance does not reduce the cost of insurance. Reinsurance does not make insurance available to any class of risk or geographic area not now within the capabilities of voluntary insurers to reach. . . ."

While the delegates responded to Mrs. Hobby's remarks politely, there was much applause for Mr. Faulkner. Several present thought the demonstration showed a lack of consideration for Mrs. Hobby and her high position in Government. A few predicted that stormy days lay ahead for the medical profession, despite an avowed friendly Administration.

Whether or not there was any connection, it appeared to your Observer that the views expressed by Mrs. Hobby on health insurance, and the facts which she submitted in support of them, may have been an incentive to the AMA's Board of Trustees to announce the formation of a new commission to make "a comprehensive survey of various types of plans through which the American people receive medical services."

Dr. Leonard W. Larson, of Bismarck, N. D., one of the ablest members of the AMA's Board of Trustees, was appointed chairman of the commission. He said that the commission would "inquire into the nature and operation of medical service plans; the quality of medical care provided; as well as the legal and ethical status of the various arrangements now being used."

One observer present when appointment of the commission was announced ventured the opinion that if any subject had been studied thoroughly and, in many instances, objectively, it was prepaid medicine. He could see no reason for going over the same ground again. In his view, the commission's task would largely be that of correlating information already available. Whatever procedure the commission adopts, he said, it must avoid the temptation of trying to prove any theory or philosophy about medical care held by the AMA if the facts do not support it.

Your Observer agrees that unless the commission's investigation is thoroughly objective it will be a waste of time. Even then it will have hard sledding where public opinion is concerned. The fact that there are no disinterested persons on the commission will not escape attention. It will be noted that all are physicians except one, Mr. Jay C. Ketchum, Executive Vice President of Michigan Medical Service, an able administrator, and well qualified to serve as a member of this commission. Other members are: Dr. David B. Allman, Atlantic City, a member of the AMA Board of Trustees; Dr. Homer L. Pearson, Jr., of Miami, Chairman of the AMA Judicial Council; Dr. Joseph D. McCarthy, Omaha, Nebraska; Dr. Percy Hopkins, Chicago, and Dr. H. Russell Brown, Watertown, South Dakota, members of the AMA Council on Medical Service; Dr. James R. Reuling, Bayside, N. Y.; Dr. H. Gordon McLean, Oakland, California; Dr. John Conway, Clovis, New Mexico, and Dr. Frank J. Elias, Duluth, Minn., representing the House of Delegates; Dr. Leo Price, New York; and Dr. William P. Shepard, New York, Chairman of the AMA Council on Industrial Health.

Again, unless the commission and the AMA can convince the American people of the objectivity of the commission's investigation, it had better not be undertaken at all. The question now is whether this test can be met.

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Public Relations and the Medical Schools

Only a cursory investigation is required to determine the extent of the public's interest in the eradication, control and prevention of disease. Space does not permit a detailed account but, in general terms, here is what one learns:

> Millions of dollars are contributed annually by a sympathetic populace to voluntary health organizations combating cancer, tuberculosis, heart disease, rheumatism, arthritis and many other disabling and fatal diseases. The Congress and State legislatures appropriate more millions for the same purpose. Well-heeled foundations support a variety of health projects to the tune of additional millions. Other millions are spent by thousands of people for health and hospital insurance.
>
> The public reads millions of words about health, medicine, and medical research in innumerable newspapers, magazines and books. It also absorbs a vast amount of information through other media, that is, radio, television, and motion pictures.

"Yet," observes Dr. Walter A. Bloedorn, Dean of George Washington University School of Medicine, "despite this vast interest in medical subjects, and despite this vast amount of reading, listening, and looking, there remains today a vast amount of ignorance, confusion and misunderstanding among the public in many health and medical areas—to the detriment of every one engaged in any kind of health activity, and to the detriment of the public."*

What is needed is the dissemination of more information "in the form [the public] can understand." "This," he says, "is the responsibility of all groups engaged in the health field, including the entire medical profession, Government, and voluntary health agencies, and all related industrial and commercial establishments."

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* From an article, "Public Relations in the School of Medicine" by Dr. Bloedorn, published in the November, 1954 issue of *The Journal of Medical Education*.

Dr. Bloedorn places special emphasis on the medical school's obligation in this regard for, he says, "There is scarcely an area in health and medicine which does not stem from the medical school, and which the functions of the medical school do not cross."

It is not enough, in his opinion, for medical schools to train physicians and, if possible, cope with mounting costs of medical education. If the schools hope to have the public understand their problems, and to enlist its support, they must take the people into their confidence.

As it now stands there are many erroneous impressions in regard to medical schools. Mentioned by Dr. Bloedorn is the impression that medical schools are accepting only students with almost impossibly high premedical scholastic averages; that influence can be brought to bear on behalf of applicants to gain admission; and that efforts are being made by the medical profession and medical schools to limit the number of students who are permitted to complete their medical studies.

Some reasons suggested by Dr. Bloedorn why medical schools should seriously embark on effective public relations programs are: The public does not realize the part played by medical schools in making the achievements of medicine possible; it is not aware that a considerable share of the credit for the high level of health in the United States should go to the schools which train physicians; and that credit is also due the schools for the fact that the quality of medical service in the United States is not exceeded any place in the world.

A major portion of medical research in this country is done in medical schools and affiliate teaching hospitals. This vital activity contributes to the rapidly increasing knowledge of the cause, treatment, and prevention of disease.

Comparatively few people are aware of the inadequate financial support given medical schools. Receipts from tuition pay for little more than one fourth of the education of medical students.

Other subjects of which Dr. Bloedorn says the public should be made aware are: "Facts about the admission, progress and graduation of classes each year; professional and community activities of faculty members; plans, purposes and achievements in research; postgraduate medical education; activities and facilities of hospitals affiliated with the medical schools, and coöperative activities with medical societies, health departments and innumerable other organizations."

Who is going to do this public relations job? Dr. Bloedorn advises medical schools which can afford to do so to obtain the full-time services of an experienced public relations man whose interests lie in the health field. However, when this is not possible, the responsibility will inevitably fall on the dean and his office staff. Dr. Bloedorn feels that this is a responsibility he must not shirk. "Lack of time and the pressure of other responsibilities is no excuse," he asserts.

From all this it appears that Dr. Bloedorn has learned his public relations lessons well, but, as he well knows, the transfer of a blueprint of a public relations program to reality takes a lot of doing. Deans, despite their competence in their own fields, are no magicians where public relations are concerned. This is a task which requires time and thought and there are just so many hours in a day.

It would appear that if the medical schools are going to do a good public relations job they will eventually have to obtain expert assistance of trained personnel. At least, Dr. Bloedorn has been in a position to take his own advice in this matter, for his school has a competent professional staff handling public relations.

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When Doctors Change Jobs

There is an increasing number of full-time positions in research and teaching institutions open to doctors. At one time most of these were filled by local physicians. This is no longer true. Faculties of medical schools, for example, are now recruiting physicians from distant places, sometimes even beyond our shores. This trend, it seems, has not reached its zenith.

Is this development good for the institutions and the individuals seeking opportunities for advancement? Not necessarily, according to Dr. Alan Gregg, Vice President of the Rockefeller Foundation, who addressed the medical personnel at the National Institutes of Health, in Bethesda, last fall on "The Natural History of Changing Your Job."

Against what he calls the "seemingly automatic and favorable growth of opportunity" he lists three obstacles to smooth sailing: (1) "The size and range of choice," (2) the difficulty of ascertaining with any degree of certainty an individual's possibilities—"Close, discriminating judgment of human character and intellectual potentialities has not kept pace in its growth, refinement and dependability with the steadily increasing job market," and (3) an atmosphere in which medical scientists may be unjustly suspect as security risks. (In elaborating on this point, Dr. Gregg refers to security conditions attached to the acceptance of Government grants.)

From this springboard, Dr. Gregg makes this observation:

"The offer of a position involves not only wisely appraising the candidate but also a wise—and under present circumstances an almost preternaturally wise—understanding by the candidate of what is involved in changing his job and accepting the new position."

He thereupon proceeds to examine the various factors which should be considered by a full-time physician in changing his job. Adopting a "device for exposition" which he said was suggested to him in a business magazine some years ago, Dr. Gregg divides a physician's working life into periods of fifteen years each:

20 to 35—Learning
35 to 50—Doing
50 to 65—Directing
65 and onward—Advising

His comments on each of these periods are both enlightening and provide entertaining reading. While the speaker was addressing himself to full-time physicians, many of his observations are equally applicable to physicians in private practice. With this in mind, the following excerpts were culled for this column:

"*Learning.* While you are in the Learning Period—that is, when you are not your own boss but working under instruction and direction—the *commonest* cause for wanting to leave is an inadequate salary; the *best* cause is the certainty that you are not learning much; the *least valid* cause is that you are living in Podunk; and the *least reliable* of causes is the feeling that you are being 'neglected.' On that last point, all young men who, though they admit they are still learning a lot, claim that they are being neglected, would do well to realize that their chief may just be trying to find out whether they have enough drive to make good use of the spare time provided by apparent neglect. . . .

"As for the Podunk complaint, i.e., that there is not enough stimulating company to be had in town, all such sufferers could well reflect upon the example set by the Mayo brothers. . . .

"All too often an eagerness to leave a post comes from emotional impatience at the insufferable repetition of actually trivial irritations, an impatience increased by suspecting that such irritations will never cease. . . .

"Not infrequently, if you give false, petty or paranoid reasons for leaving a job they will be relayed by the grapevine to the new position and you will thus sacrifice the main advantages you expected from the change. . . .

"The positive reasons in the Learning Period—the attractions of the new place—usually relate to the widening of one's experience or new horizons or a higher salary or the chance to make new friends. Sometimes the advantage offered is the opportunity to prove to yourself that you can go it alone, that you can wean yourself from your past by accepting the challenge of a completely independent existence. . . .

"The major source of trouble, once you have moved, is to be found in what you assumed incorrectly, in what you took for granted. . . .

"*Doing.* Changes of job between 35 and 50 involve some of the considerations already mentioned, but often with a different measure or kind of emphasis. The responsibilities of a family may very naturally increase the dissatisfaction of a low salary. The quality of education available to your children may be a cardinal factor in your decision to accept or decline an offer. . . .

"One of the most familiar dissatisfactions in the Doing Period of 35–50 is teaching overload. . . .

"Another strain, though far less common than teaching overload, has a certain interest and even a novelty that escapes the more casual observer. When research work is carried on short-term grants whose extension or renewal becomes the major preoccupation of the recipient, the task of finding further financial support may become so exhausting and distasteful as to make some other posts more attractive. . . .

"One other cause of dissatisfaction in the Doing Period of 35-50 deserves mention, regrettable though it is. We cannot safely assume that college presidents or deans or boards of trustees will have an unerring flair for appreciating every kind of superior talent already at work in their own institution. Recognition may have to come from the outside. . . .

"Among the more familiar reasons for a man presumably in his most productive years moving to another institution is the offer to work on what he pleases with larger facilities, larger salary, tenure and stability, and the externals such as title and prestige. . . .

"*Directing.* But it is in the next period when directing becomes the major task, the period of 50 to 65, that changing jobs presents the liveliest—or perhaps, more cautiously said, the deadliest aspects. It is the time when most of us realize that it is now or never. But too few of us realize that bravado has been defined as frustration in action. And too few of us have heard, and harkened to, the gay wisdom of Christopher Morley's observation to the effect that any man who is worth his salt has by the age of 45 acquired his crown of thorns, but the problem is to wear it over one ear. . . .

"In the mood of a naturalist or natural historian I would mention at this point the syndrome sometimes called the masculine menopause. Perhaps the name for it is not truly justified—anyhow it is an understatement. It appears usually between the ages of 50 and 65 and lends a peculiarly unreliable element to the blandishments of a change of job in that period. You are bored with what you have. It is too familiar and too repetitious. You crave change. Something is wrong. You want to experience wholehearted abandon to something wholly engrossing—whether it be fresh female society, alcohol, hypochondriacal convictions, or a new job—and all this when steady leadership, confidence, patience, and self-knowledge are expected of you. . . .

"From what I have seen of men taking new jobs in the period of life when directing is their major task, I would offer three or four observations tinged at times with a trace of warning. When you are offered a director's job, find out who is backing you and why or for what purpose. What does he expect you to do? Do you like him as a human being? Do you respect him? How long is he going to stay in a position to make good his promises, whether they are implicit or defined? Are you the candidate of a clique? Are you offered the job because nobody knew anything against you? Does your appointment represent one stage of a quarrel you knew nothing of? Are you following a man whose subordinates will think they prove their loyalty to your predecessor by opposing you? What fraction of his staff will you want to keep? What fraction will you *have* to keep for other reasons?

"Even when you have a completely new staff to assemble and the chance to do it, my vicarious experience in watching such opportunities unfold suggests that it is well to allow for the loss within five years of four or five out of every ten men you have picked to work with. One may prove to be not what you expected. Another may find the position not what he had expected. And between the losses due to accident, disease, and the competition from the outside for some of your best men, you may very probably lose two or three more. In fact the obvious allure of an offer of 'having a free hand' seems to me considerably discounted by what experience so often shows. . . .

"*Advising.* In taking new jobs when you are over 65 you may do well to be quite realistic about that age group. At no other time of his life is a man more likely to be so tolerant of praise, so easily a dupe of flattery and a victim of 'the V.I.P. treatment,' and so pathetically ready to believe that he is indispensable. John Finley epitomized the sensible attitude for oldsters to take by his witty motto, 'Nothing succeeds like successors.' One of the most vivid examples of the opposite view was the Edinburgh physiologist Sharpey Shaffer, who kept his academic chair until the age of 94, thus completely frustrating the hopes of two generations of possible successors. His last lecture was on artificial resuscitation —a circumstance I have always regarded as a triumph of academic irony. . . .

"In two or three ways elderly men and women can make a peculiar contribution without taking anything away from their juniors. Not all elderly persons can thus contribute, but some can. Advanced years often bring on a measure of detachment that is rare in the 'doing period'—a detachment that enables you to see defects even in the very system in which you have succeeded. . . .

"In another direction the man whom time advances to the status of adviser can be useful. The best thing an adviser does is to listen. If one cannot be sure one knows enough to advise, it still is possible to listen attentively, sympathetically, and with benevolent endurance. . . .

"In addition to listening, our best advisers, like our best trustees, reinforce our consciences by being the kind of people we don't like to disappoint. . . .

"But the most interesting aspect of what the geriatrists prefer to call by the euphemistic name of 'advanced maturity' seems to me to be an increase with age in the synthetic capacity of the mind, the capacity to generalize, to rephrase and put things in a quite new perspective, to regard interactions as well as actions, to detect the feedback phenomena in human life. . . ."

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Death in the Family "A long term decline in mortality has had a strong stabilizing influence on family life in the United States," observes the *Statistical Bulletin of the Metropolitan Life Insurance Company* (October 1954). "In families where there are young children the chances are now less than one in a hundred that one of the parents will die within the year."

Even under these favorable mortality conditions, however, the possibility of the parents surviving until their children are of age is still not too great. Each year death comes to one or the other of the parents in 700,000 families. In addition, there is the death in many thousands of homes of a son or a daughter.

The statistical table published in connection with the article illustrates graphically life expectancy within a family circle. For example, in a family where the husband is 20 years of age, his wife 19, and there is an infant, chances are only 9 in 1,000 that the husband will die within five years. However, the ratio rises rapidly with the passing years. At the end of 20 years it is 41 in 1,000.

Chances of death are naturally much greater for those who are married in later life. If the husband is 40 at the time of his marriage he is in a group where 24 out of 1,000 will die within five years. In 20 years the ratio in this group is 197 to 1,000.

The chances of survival of other members of the family are not as good in the early period but are far better as the years pass. When the wife is 19, and there is one child, 10 out of 1,000 will die within five years. Gradually the comparison between the husband and others in the household becomes more favorable to the latter. Within 20 years there will be a mortality of 41 out of 1,000 among husbands as compared to 39 out of 1,000 for other members of the family.

The wife who is married at 37 to a 40-year-old husband has a much longer life expectancy from the very beginning. At the end of five years the ratio of other members of the family, as compared to the husband, is 20 to his 24 out of 1,000. The ratio in 20 years is 197 for the husband as compared to 142 to 1,000 for other members of the household.

As is well known, the untimely death of a husband throws a heavy financial burden on his survivors. This is especially true where there are dependent children who require many years of schooling before they can support themselves. In these circumstances, the mother is often required to obtain employment and at the same time keep the home functioning.

The *Bulletin* states that this situation is not infrequent; in fact, in 1953, 122,000 husbands died under the age of 55 years. Undoubtedly a large number of these had children dependent upon them. In families where there are preschool children 15 to 20 years will pass before the formal education of the youngest child is complete.

Fortunately, a large number of families in the United States provide for what the *Bulletin* describes as long-term needs and contingencies which, of course, include taking into account the possibility of the breadwinner's premature death. Included in these buffers against unforeseen hazards to the family are savings accounts, investments, and life insurance. Three out of four families in this country have purchased some form of life insurance.

T. W.

PHYSICIANS WANTED FOR ARMY DISPENSARY

Civilian physicians are wanted in the United States Army Dispensary at Fort Myer, Arlington 11, Virginia. Physicians who are interested can arrange for an interview by calling Mrs. McWhorter, Jackson 2-3000, Extension 2112.

REPORT OF DELEGATES TO THE AMA CLINICAL SESSION*

Although an enormous quantity of informational material was presented to delegates at the AMA Miami meeting, there were few new issues for consideration, and most of the controversial old ones were deferred. For information, the annual financial review and reports of AMA officers, councils, and other agencies were reviewed and approved. There were progress reports about negotiations with the osteopaths and about the problems of malpractice insurance and general practice—reports that implied that these important matters may receive full review in June.

On the day before the first meeting of the House of Delegates, an otherwise dull public relations conference was enlivened with an address by Daniel Mich, Editorial Director of *Look*. Mr. Mich told the conferees "Why Magazines Write About Medicine." He cited the enormous increase in articles on medical subjects in popular magazines—contrasted this with the days when "the only way to get a medical article for a magazine was to buy one from Morris Fishbein." Mr. Mich explained that magazines publish medical articles because people like to read them—that this popularity with readers is a consequence of the very personal effect of most such articles. If it did nothing else, his talk should have reconciled physicians to the inevitable.

Reinsurance

Equally lively, and equally outside the regular business of the House of Delegates, were the opening-day talks by Mrs. Oveta Culp Hobby and Edwin J. Faulkner. Mrs. Hobby spoke for the Government plan for reinsurance. She emphasized that there are 30 million people who might be covered by voluntary sickness insurance but are not. Also, she opined that the 100 million already insured should have improvements in coverage. In considering these needs, she pointed out that there are four possible courses of action: (1) compulsory health insurance, (2) state or Federal subsidization of voluntary insurance plans, (3) to do nothing, or (4) Federal reinsurance. Neither the Eisenhower administration nor the AMA will have anything to do with the first two. The administration finds a laissez-faire attitude repugnant and therefore favors reinsurance.

Mr. Faulkner, who followed Mrs. Hobby at the rostrum, told why Federal reinsurance won't work. His chief argument: If reinsurance were the answer, the problem already would be solved because private insurance companies have plenty of money for reinsurance purposes; Government funds would be superfluous.

Since AMA policy continues to favor the view expounded by Mr. Faulkner, in effect Mrs. Hobby's speech brands the AMA as favoring "do nothing." To some extent, this awkward predicament may have been relieved by a belated action of the Board of Trustees. On the day after the House of Delegates had adjourned, the Board announced the appointment of a 13-member special commission "to make a comprehensive survey of the various types of plans through which the American people receive medical services."

Medical Care of Veterans

Although there has been no change in AMA policy in this area, the Miami meeting witnessed restoration of diplomatic relations between the American Legion and the AMA. Mr. Seaborn P. Collins, National Commander of the American Legion, spoke words of peace to the AMA delegates—quite an improvement on the "kick 'em in the teeth" program espoused by some legionnaires when they met here in Washington last summer. Mr. Collins mentioned the many ways in which AMA and Legion are in complete agreement, indicated that Legion leaders are confident that differences of opinion about medical care for veterans can be settled by negotiations. For that purpose, the Board of Trustees later designated a three-man committee, Dr. Elmer Hess, Dr. David Allman, and Dr. Louis Orr.

Report on Internships

Acting on the report of the Ad Hoc Committee on Internships, the House accepted a recommendation of the Reference Committee on Medical Education and Hospitals that "the data and judgements of the Ad Hoc Committee on Internships will provide valuable guidance to the Council on Medical Education and Hospitals, and with this in view it is recommended that the report be referred to the latter for their further study and guidance." Following are a few excerpts from the report of the Ad Hoc Committee on Internships:

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* The Eighth Clinical Session of the American Medical Association was held in Miami, Florida, November 29–December 2, 1954.

> "It is our opinion that graduates of foreign medical schools should be considered for intern appointment in approved hospitals only when there is satisfactory evidence that:
>
> "1. Language difficulties will not seriously impair the program.
>
> "2. The same educational standards are applied to graduates of foreign schools as to graduates of approved American medical colleges.
>
> "3. The appropriate state licensing board approves. . . .
>
> "The Committee believes that the present standards detailing only the number of annual admissions, autopsy rate, number of beds and assignment of an intern to from 15 to 25 beds, are without significant meaning unless and until every local situation is reviewed 'on the grounds' and with full opportunity for discussion between the representative of the accrediting body and representatives of the hospital's governing board and its medical staff. . . .
>
> "Had the 'two-thirds rule' remained a requirement and been rigidly applied to the two consecutive intern years 1952–3 in combination with 1953–4 it would have removed 448 hospitals, cancelled 4,205 internships to which 784 students were matched in those years and reduced the number of internships available to 6,766. . . .
>
> "The committee suggests consideration of some requirement based on filling a percentage of approved internships and a time limit to eliminate some of the unhealthy aspects of the present situation. The following requirement is recommended: Any internship program which in two successive years does not obtain one fourth of its stated intern complement be disapproved for internship training.
>
> "As applied to the figures for 1952–3 in combination with 1953–4, this requirement would have removed 277 hospitals, cancelled 2,139 internships to which 80 students were matched in those years and reduced the number of internships available to 8,832."

GRIEVANCE COMMITTEES

In order to improve efficiency and maintain high standards in the operation of grievance or mediation committees, the House endorsed the principles of two similar resolutions introduced by the Colorado and Mississippi delegations and asked the Board of Trustees to appoint a committee to study and report on recommended standards for the operation of such services. Both resolutions had emphasized the valuable public service aspects of grievance committees and had suggested that the committee appointed by the Board of Trustees be composed of representatives from constituent societies in which grievance committees have been effective and useful.

HOSPITAL ACCREDITATION

In place of an Indiana resolution protesting certain situations arising in connection with hospital inspections, the House adopted the following substitute resolution to solve the problems in question:

"Resolved, that the Secretary of the American Medical Association be directed to request that the Joint Commission on the Accreditation of Hospitals supply a copy of the letter of notification regarding the results of the survey of each hospital to the Hospital Administrator, to the Chief of the Professional Staff and to the Chairman of the Governing Board of the hospital."

THE DOCTOR DRAFT LAW

The Reference Committee on Medical Military Affairs considered several reports and resolutions involving the doctor draft law, and then proposed the following policy statement which was adopted by the House of Delegates:

> "(A) That on the basis of current information the House of Delegates commend and express itself as being in complete accord with the Board of Trustees and its Council on National Defense that the 'Doctor Draft Law' should not be extended after June 30, 1955, and that the House of Delegates further express its confidence in the ability of the Board of Trustees and its Council on National Defense to properly handle any new situation which may develop in regard to this highly complex and involved problem.
>
> "(B) That the Board of Trustees and its Council on National Defense continue to study the problem of providing the best possible medical service for members of the armed forces and that they make recommendations to the Department of Defense at the earliest possible time for a more permanent solution to the problem, giving special attention to the further development of a career medical corps with adequate compensation therefor."

MISCELLANEOUS

Dr. Karl B. Pace, of Greenville, North Carolina, was designated "General Practitioner of the Year." Dr. Pace, a vigorous, 66-year-old family doctor, told the delegates when he thanked them, "Being a country doctor, you know I'm already scared to death. If you notice a funny noise—that's not Hurricane Hazel—it's my knees shaking."

Again the Board of Trustees turned down a District of Columbia invitation for the interim AMA meeting, chose Philadelphia for the 1957 Clinical Session.

On the scientific program at the Miami meeting, the District of Columbia was represented by Donald Stubbs, Preston A. McLendon, and Andrew G. Prandoni. Among the scientific exhibitors were Milton C. Cobey, William F. Enos, James C. Beyer, James M. Moss, Benjamin Manchester, Glenn E. Jackson, Lester A. Smith, Frank A. Finnerty, Oscar B. Hunter, Jr., James Q. Gant, James P. Albrite, Robert J. Anderson, Armand E. Brodeur, William B. Walsh, William H. Stewart, W. Proctor Harvey and Arnold B. Kurlander.

The Secretary, who was Chairman of the Program Committee for the Medical Society Executives Conference, participated in a panel discussion devoted to "Training of Personnel for Positions Peculiar to Medical Societies" on November 29. He also attended a meeting of the Executive Committee of the Conference of Presidents and Other Officers of State Medical Associations, of which he is a member.

Hugh H. Hussey, M.D., *Delegate*
Raymond T. Holden, M.D., *Delegate*
Theodore Wiprud, *Secretary*

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, February 28, 1955.

For Active Membership

Gordon W. Daisley, Jr., George Washington University—1948
William Arthur Eddy, University of Vermont—1952
Albert F. Fleury, Georgetown University—1946
Robert D. Gillman, George Washington University—1950
Harry W. McCurdy, University of Pennsylvania—1943
Joseph S. Thomas, Howard University—1935

For Associate Membership

Jose F. Gutierrez, University of St. Thomas, Manila, P.I.—1933
Arthur Z. Metzger, University of Arkansas—1948
Eddie Wolfe, B.S. in Pharm., George Washington University—1937

For Resident-Intern Membership

Roger H. Bergstrom, George Washington University—1952
Melvin W. Sandmeyer, Jr., George Washington University—1953

Six New Life Members

Chapter II, Article IV, of the Constitution of the Society, reads as follows:

> Life members shall be active members who have been active members for a total of forty years. They shall have all of the privileges of active membership and shall be exempt from paying dues and assessments.

Our honor roll now numbers 79. The congratulations of the Society are extended to:

Seniority Number		*Date of Membership*
644	A. Clagett Gray	January 13, 1915
645	Lester Neuman	January 13, 1915
647	Robert B. Bacon	January 19, 1915
656	Claude C. Caylor	May 13, 1915
660	Eugene A. Taylor	December 8, 1915
661	Ferdinand H. Mistretta	December 8, 1915

who have for forty years been on the roster, meeting all dues and assessments and lending their support to the Society by frequent attendance. Their status is now elevated to Life membership.

WOMAN'S AUXILIARY NOTES

The Library of the Medical Society Building is always a warm and inviting place on a wintry afternoon, and it was never more so than on Wednesday, December 8, when the Woman's Auxiliary to the Medical Society of the District of Columbia held its annual tea to honor new members and the Nursing Scholarship students.

We are proud of these student nurses, of which there are seven. They are a credit to us and to their respective hospitals. The new members were easily identified by the gay little Christmas boutonnieres they wore.

Along with our past presidents and honorary members (the Army, Navy, Air Force, and Public Health wives), we were delighted to see so many of our charter members present. It is always a pleasure to have them with us.

The tea table and mantel were beautifully decorated with Christmas greens and white candles, and on the table were all kinds of holiday goodies!

With the warm, friendly feeling that always comes with good food, soft candlelight, and stimulating conversation, it was so pleasant to say "Merry Christmas" to one and all and look forward to seeing them at the tea next year!

Mrs. Albert E. Marland
Publicity Chairman

MEDICAL EXPENSE PLANS*

JAMES ANDREWS, JR.

Director of Health Insurance, Life Insurance Association of America; Vice Chairman, Health Insurance Council

I am going to cover two topics with you in the next few minutes. I am not going to get into such obvious questions as the theory of indemnity insurance written by our companies. I think you know that by and large we do not attempt to cover the full bill. We could not do so without agreements on fees and charges with the doctors and the hospitals. Suffice to say that we have been successful in selling hospitalization, surgical and medical insurance to large numbers of people and to employers for large numbers of employees. As of the first of this year, the insurance companies had covered the following numbers of people: 53,482,000 for hospitalization insurance, 51,707,000 for surgical insurance, and 18,523,000 for medical insurance, the latter being chiefly for calls by the physician in the hospital.

The nature of these insurance coverages is probably quite familiar to you, but I want to tell you of a new development in the medical insurance field which may be new to you—catastrophe insurance.

THE BROAD SECURITY NEEDS OF THE PUBLIC

First, however, let us examine the broad security needs of the public.

Mark Twain once said that a satisfactory standard of living is a little more than you've got. I recall when I was serving my law clerkship in an office in Philadelphia, the chap with whom I shared an office was struggling to concoct a satisfactory bachelor's budget, as was I. Finally, he said: "Why don't we make adequate provision for entertainment, and everything else, being necessities, will take care of themselves."

Under either of these philosophies, payment for medical care is likely to have a low priority because it is an unwanted item in the budget. Likewise, prepayment or insurance of the cost of medical care would have "tough sledding." To persuade the public to set aside sufficient funds for insurance purposes we have salesmen who must compete not only with the attractive installment-sold merchandise of the twentieth century, but also with other forms of insurance and savings.

Insurance directed specifically toward defraying the cost of medical care is only one type of insurance sought by the public today. There are numerous contingencies against which the public seeks protection. There are fire insurance, burglary insurance, public liability insurance, auto insurance, pensions for old age, and life insurance.

The list could be longer and in the aggregate could be frightening if we did not note the substantial progress which the members of the public have made in protecting themselves. The public holds total life insurance obligations from the insurance companies of over $300 billion. The public last year paid the insurance companies over $7 billion in life insurance premiums and over $1 billion in premiums for pensions, to name two rather distinct forms of protection. The public badly needs these forms of security. Life insurance, for example, provides funds for the surviving dependents, not only for food, clothing and shelter, but also for medical care.

Turning to the field of accident and health insurance, insurance men consider loss-of-income policies the most basic of accident and health policies, because when a man's income stops because of ill health he may be unable to pay for food, rent, clothing or medical care. There are 29,000,000 people in the country today carrying such policies, with many additional employees receiving like benefits under uninsured plans.

I have already given you figures for the conventional forms of hospitalization, surgical and medical insurance. These conventional forms were never designed to meet the needs of those who are hospitalized for long periods; of those whose surgical bills exceed the amounts provided in the schedules of surgical insurance policies; of those who require extensive treatment by nonsurgical specialists; and of those who need special nursing care or expensive drugs outside the hospital. Although only a few people have such extreme expenses, they can be financially disastrous for those who must pay them.

NEW TYPE OF POLICY

To give protection against extraordinary costs of medical care, a different type of policy has been developed in the last few years. This new type of policy is known as major medical expense or health catastrophe insurance. Over a million persons now have such protection. The new policies are written to provide benefits toward all types of expenses for treatment necessary to restore the individual to a state of health up to $5,000, $7,500 or even $10,000.

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* Remarks at Panel Discussion on Medical Expense Plans presented at First Interstate Scientific Assembly of the Medical Society of the District of Columbia and the Medical Society of Virginia in Washington, D. C., November 1, 1954.

High maximum limits have for years been found in policies applying only in the case of accident. In devising the new policies which cover both accidents and illnesses, the companies were faced with two new problems. One was the frequency of small illnesses. The other was the subjective character of much illness as opposed to the objective character of an accident. To meet these problems, major medical policies generally contain two special features: a deductible provision and a co-insurance clause.

Small Illnesses: Deductibles

A deductible provision, similar to that found in most automobile collision policies, was utilized to eliminate not only the small claims themselves but also the disproportionate administrative expense associated with them. Although these small claims represent a large element of cost in the aggregate, minor bills can be readily taken care of by the insured and should be provided for by budgeting rather than through insurance. By excluding small bills from this new form of insurance, it is possible for the major medical premiums to remain at an attractively low level and for the insurance dollar to be used to best advantage in covering the larger elements of expense, that can be such a hardship to the individual. The deductible amounts range from $100 to $500. The higher the deductible, the lower the premium. The policies generally provide that in the case of a common accident affecting more than one insured person in the family, the deductible shall apply only once to the combined expenses of those hurt in the accident.

Subjective Nature of Illness: Co-insurance

The provision of this new type of policy of rather large aggregate amounts, running as high as $10,000, brought into focus more clearly than ever before the subjective character of many illnesses. To deal with this, the companies found it necessary to make very specific provisions with respect to co-insurance.

Probably every doctor knows of cases in which one person is so sick that he thinks he should go to the hospital, while another, with the same physical condition, thinks he is well enough to go to work.

Financial worries may contribute to illness and retard recovery; on the other hand, the certainty that treatment is available without substantial expense may encourage a person to seek or prolong that treatment. While it is undesirable that lack of money should prevent proper treatment, it must be remembered that unnecessary treatment due to the presence of insurance will increase the cost of the insurance, possibly to the point where people cannot afford to buy it.

The companies have tried to solve this dilemma by introducing a financial sharing on the part of the patient known as "co-insurance." Once the expenses go above the amount of the deductible, be it $100 or $300, or $500, the patient pays from his own funds a percentage of each additional dollar spent for his medical care. Generally the insurance company's share above the deductible is limited to 75 per cent of the expenses, with the patient paying the remaining 25 per cent. The patient thus has a direct financial interest in each dollar of medical or hospital care ordered for him.

The use of co-insurance, along with the deductible, makes it possible for the companies to offer relatively high maximum benefit amounts at relatively low premiums.

Flexibility

One of the most valuable aspects of major medical expense insurance is its flexibility. Just as medical practice has changed in the past decade, there is every likelihood that it will change in the next. By means of major medical expense insurance, protection is available which will keep pace with changing times. "Major medical" is designed to meet the cost of all types of service needed to restore the individual to health, rather than being limited to a specific type of service, such as hospitalization or surgery. Eligible expenses include: hospital charges for room and board and other necessary expense, charges of the family physician, consultant, surgeon or other specialist, whether these services occur in or out of the hospital; charges for special nursing and physiotherapy, in or out of the hospital; and charges for drugs, dressings, and X-ray examinations or laboratory tests, in or out of the hospital. Thus, the financial pressure to have one type of treatment rather than another, or to go to the hospital when hospitalization is not really needed, is largely eliminated.

Voluntary health insurance is not static. New methods, improved policy forms, and broadened coverage are constantly being put into effect. There is good reason to believe that the economic problems of ill health for the vast majority of our population are rapidly being solved. With over one million persons insured, major medical expense insurance is a big step in this direction.

I have covered three topics; two are opposing sides of a coin: the broad security needs of the public, and how we get them to set aside sufficient funds voluntarily to meet those needs. The third is the problem of designing a policy to meet a previously unfulfilled need.

Success in spreading more adequate insurance to more people depends not only upon the enthusiasm with which the agent sells it but, also, if it is to be sound, upon the ingenuity with which the actuary designs it.

GRIEVANCE COMMITTEE CASE REPORTS

The following report is based on a complaint received recently by the Grievance Committee. While all the facts presented are true, they have been arranged in such a manner as not to embarrass anyone. The sole purpose of this report is to call to the attention of members of the Society, in as graphic a manner as possible, typical complaints with which the Committee must deal. The Committee hopes that they will serve to promote a better understanding of the problems which arise between physicians and patients and how best to solve them, thus building up a better relationship between members of the medical profession and their patients.

Case Report 4

Complaint: Mrs. B complained that Dr. R had agreed to deliver her for the Medical Service fee, then had charged an additional amount.

Course: Mrs. B, a working woman whose annual income together with her husband's was found to be about $3,300, engaged Dr. R to attend her in an obstetric case. The fee agreed upon was $80, the amount allowed for obstetric care by Medical Service, to which she was a subscriber.

After delivery, when her husband came to take her home from the hospital, she signed the necessary papers and gave them to Dr. R. He collected the $80 from Medical Service. In the form he filled out he stated that his usual fee for an obstetric case was $125.

Mrs. B's husband also carried another health insurance policy covering himself and family which paid a fee of $100 for an obstetric case. Before the patient left the hospital, Dr. R was asked by the husband to sign a form so that he might collect this sum.

Dr. R had not known that Mr. B also carried health insurance. A few days after Dr. R filled in the form and mailed it, he received a check for $100 from the insurance company.

When Mr. B learned that the check he had expected to receive had been sent to Dr. R, he asked for it. Dr. R refused to give it up. Mr. B then appealed to the Grievance Committee, which communicated with Dr. R and asked for his version of the matter.

Dr. R wrote that Mr. B's insurance policy called for payment to the doctor and Mr. B had signed a form authorizing such payment. As a result Dr. R thought he was entitled to the check.

Dr. R said that in answer to the question in the form as to what his charges were he had stated $150 because he "knew what Medical Service would allow," but was not sure what Mr. B's insurance company would allow under the circumstances. The doctor said the insurance company had telephoned and reminded him that he had stated his charge as $150 and that, since he had already been paid $80, he should pay Mr. B the balance of $30. Dr. R said he had agreed to do this, but Mr. B had been "rather abusive" and he decided not to.

The Committee decided that Dr. R was entitled to $80 only, the amount he had agreed to accept for his services in the first place, and so informed him.

Dr. R replied rather resentfully, questioning the impartiality of the Committee in its decision and requesting an opportunity to appear in person and discuss the matter.

His request was granted and after full discussion Dr. R agreed to return the $100 to Mr. B's insurance company with the explanation that double payment had been made and he was not entitled to accept their check. Whether the company paid Mr. B the $100 was not learned, but presumably it did.

This raises the important question of what should be done when a family holds more than one health policy.

Conclusion: The Grievance Committee was concerned that Dr. R had agreed to accept $80 for the delivery and had then attempted to retain more. It was felt that the additional insurance had been paid for by the subscriber, was intended to cover health expenses, and was rightfully the subscriber's. The Committee does recognize the problem of multiple insurance and is hopeful of some satisfactory solution in the future.

STUDY PROJECTS AT THE CLINICAL CENTER

The U. S. Public Health Service has published a booklet describing approximately 100 clinical studies now under way or contemplated for the fall and winter period of 1954-55 at the Clinical Center of the National Institutes of Health in Bethesda, Md.

The booklet gives information on procedures for referral of patients, and eligibility requirements. To be admitted, a patient must be referred by a physician, and must manifest a specific condition under study by one of the seven Institutes conducting research at the Clinical Center.

Physicians may obtain a copy of the booklet by writing to the Director of the Clinical Center, National Institutes of Health, Bethesda 14, Md. Future announcements also will be sent upon request whenever new studies are contemplated.

The National Cancer Institute lists 13 principal study projects for the current period. These include studies of leukoplakia and leukoderma, tumor cells in operative wounds, extensive surgery in advanced cancer of the head, neck, and uterus, primary operable cancers, endocrinologic and metabolic aspects of cancer of the breast, massive estrogen therapy in prostatic cancer, hormonal therapy of cancer of the uterine cervix, hormone-producing tumors, cancer of the larynx in females, neural factors in thyroid disease, abnormalities of somatic growth, and leukemia and allied diseases. Additional Cancer Institute studies include osseous metastases, skin metastases, and the lymphomatous diseases, including lymphosarcoma and Hodgkin's disease.

The National Heart Institute is currently studying cardiodynamics, cardio-respiratory physiology, cardiac reserve, obesity in heart disease, essential hypertension, adrenal-cortical steroids in edema, effects of insulin and glucose on circulating lipids of diabetics, effects of fructose on diabetic ketosis, lipid transport defects with relationship to atherosclerosis, nephrosis and nephritis, surgical treatment of congenital and acquired heart defects, mechanism of action of diuretics.

Studies conducted by the National Institute of Arthritis and Metabolic Diseases include hemoglobin metabolism, cortisone turnover, anemia in rheumatoid arthritis, effects of new synthetic steroids on early acute rheumatic carditis, metabolism of fructose in diabetics, adrenal function and salt and water metabolism in myxedema, mineral metabolism, iron absorption in liver disease, hemochromatosis and anemia, the metabolic defect in gout, and the nature of insulin resistance in diabetes.

The National Microbiological Institute is studying rheumatic fever, acute glomerulonephritis, respiratory viral diseases, brucellosis, histoplasmosis, infectious hepatitis, trichinosis, amebiasis, filariasis, schistosomiasis, sarcoidosis, leptospirosis, encephalitis, mumps, tularemia, allergy-immunology, enteric diseases, toxoplasmosis, ascariasis, Q fever, infectious mononucleosis.

The National Institute of Neurological Diseases and Blindness is conducting studies of cerebral palsy, myasthenia gravis, muscular dystrophy, myotonia, multiple sclerosis, amyotrophic lateral sclerosis, epilepsy, uveitis, cataracts, glaucoma, and strabismus.

The National Institute of Mental Health is doing clinical research on adults with schizophrenia, involving many complex related investigations, similar studies of disturbed children, and the interrelation-

(*Continued on page 54*)

On the Lighter Side

January is the month when winter is upon us and the bare trees creak and crackle and rustle their limbs to the freezing winds. The few remaining dry leaves are snapped from their branches and crazily flutter to earth, only to be whirled and tossed by the wintry gusts.

The brown earth is hard and unyielding; the clumps of green are few and far between the spreading bare spots, and thin ice forms on the surface of the puddles.

The gray sky is overcast or is billowing with snow clouds as the high winds hurry the clumps of floating vapor across the dome of the hemisphere. The air is nippy, clear, and penetratingly cold as ephemeral fog escapes from the efforts of human respiration.

January is also the take-stock month when we look back over the old year now gone into limbo and wish that we had done things a little differently, or, as the case may be, are smugly satisfied with that which we did do.

To many of us, January is a clean new slate upon which we may write with bold strokes the good things that we want to do but somehow never got around to doing in the past. For instance, that kind expression of affection to those we love; that friendly pat on the back to the colleague whom we admire; the encouraging word to the one who is striving with sincere earnestness to master the difficult task no matter what that task may be; that bridling of the tongue when sudden anger confronts us; that curbing of the critical word when some one honestly and innocently challenges our pet ideas and beliefs.

January is a relaxing month. The hurly-burly and hustle of December is over. The holidays with all their activity are over, and the festive days and eggnog nights have come and gone for another twelvemonth. The tensions that we built up in our ragged nervous systems have been slowly dispelled and we react with utter limpness, welcoming the New Year as though we may never have it with us again.

January is the new month of old bills, when all our exuberant excesses of the Christmas season come home to roost in the mailbox. Perennially January is the month when we find out for the first time that we are a year older. We look into the mirror and note the lines, the crow's-feet, the sagging jowls, the pouches under the eyes, the receding hair line, and we shudder and we vow never to look into the mirror again.

Such is January! The month of new ambitions, new determinations, new resolutions, and new automobiles. But January is also the beginning of the second half of the season for the D. C. Medical Bowling League. As of December 3, 1954 the team standings were as follows: In first place was the surprise team of the year, Columbia, with 21 in the won column and only 9 in the lost column; in second place, huffing and puffing, was Children's team with 23 won and 10 lost; George Washington was third and tied with Casualty with 19 won and 11 lost; in fifth place, Sibley No. 1 with 18 and 12, and then Garfield, Doctors, and Prince Georges teams tied with 17 won and 13 lost. Sibley No. 2 was ninth with 15 and 18, and Washington Hospital Center and Georgetown tied with 13 won and 17 lost. In twelfth, thirteenth, fourteenth, and last places were Suburban with 10 and 20, Providence with 11 and 22, Emergency No. 1 with 10 and 23, and finally Emergency No. 2 with 8 won and 22 lost.

The individual records of the bowlers were dominated by Dr. Francis X. Richardson and Mr. Paul Duffy, the old Pro. High average bowlers were Mr. Paul Duffy in 27 games 114-13, Mr. Frank Baiers in 32 games 113-12, Dr. Francis X. Richardson in 30 games 111-24, and Dr. George Ball in 20 games 111-13. High set of 402 belongs to Dr. Francis X. Richardson, Mr. Paul Duffy 399, and Dr. Gordon MacDonald 384. High game to Dr. Gordon MacDonald and Dr. F. X. Richardson with 151 each, and Mr. Paul Duffy 150.

The high spares were made by Drs. Blaine Eig with 76, Francis X. Richardson 73, and Mr. Frank Baiers 72. The high strikes were made by Drs. J. Earl Kadan and Ray N. Brown, who were tied with 21 each, and Gordon MacDonald with 20.

J. Earl Kadan, M.D.

News and Personals

MEETINGS—Past and Future

Physicians are reminded of the **Regional Meeting of the American College of Physicians,** which will be an all-day meeting at the Medical Society's building, February 12. Dr. Harold Jeghers, Professor of Medicine at Georgetown University School of Medicine, is Chairman of the Program Committee.

The Mid-Atlantic Division of the United States Section of the International College of Surgeons will hold its Regional Meeting at the Hotel Statler, Washington, February 11 and 12. A cordial invitation is extended to members of the surgical and allied professions to attend the meetings. The registration fee is $5 but there will be no charge for physicians in the military service, or to residents, interns and nurses.

Dr. James W. Watts, who is General Chairman of the meeting, will preside at the opening session, February 11. The members and guests in attendance will be welcomed by Dr. Preston A. McLendon, President of the Medical Society of the District of Columbia, and by Dr. W. Ross Morris, President of the Washington Academy of Surgery.

Among those who will serve as presiding officers during the meeting are Drs. Alfred E. Jackson, Charles S. White, William C. Meloy and Herbert P. Ramsey, and as secretaries, Drs. Everett J. Gordon, Duane C. Richtmeyer, Valentine M. Hess, and Samuel M. Dodek.

Dr. Dodek will present a paper, February 12, on "Leiomyomata of the Pregnant Uterus." Drs. Edward A. Cafritz, Philip A. Caulfield, and Thomas S. Sappington will participate in a Panel Discussion on Gall Bladder Disease, February 11.

Drs. Emil C. J. Hildenbrand and Duane C. Richtmeyer prepared the program. Chairman of the local Committee on Arrangements is Dr. J. Ogle Warfield. Dr. Norman H. Isaacson is in charge of hotel reservations, and Dr. Virgil T. DeVault is Chairman of the Banquet Committee.

The Ladies Committee, under the joint chairmanship of Mmes. James W. Watts and J. Ogle Warfield, Jr., are planning a tea for wives of visiting physicians at the Pan American Union, February 11, and a special tour of the White House, February 12.

The Southeastern Surgical Congress is celebrating its **25th Anniversary** on February 21–24, 1955, at the Biltmore Hotel, Atlanta, Ga., in a joint meeting with the Atlanta Graduate Medical Assembly. The program for the Congress' Silver Jubilee has been built around the first scientific program, which was presented in 1931 in Atlanta. Most of the original subjects presented at the first scientific session will be presented again, showing the progress which has been made during the past 25 years. Some of the original speakers will be present.

Among the 51 speakers will be five from Washington. The subjects they will present and their names are:

"The Treatment of Cancer of the Breast Showing Twenty-five Years of Progress," Drs. Harry H. Kerr and Ernest A. Gould

"Emergency Colon Resection with Primary Open Anastomosis, without Preoperative Antibiotic Therapy," Drs. William W. Chase and William H. Ferguson

"A Surgical Closure of Interauricular Septal Defects by Open Cardiotomy," Dr. Edgar W. Davis

Dr. B. T. Beasley, 701 Hurt Building, Atlanta, Ga., will furnish complete information regarding the program upon request.

The American Academy of General Practice convenes for its **Seventh Annual Scientific Assembly** in Los Angeles, Calif., March 28–31, 1955. Among those who will participate in the scientific program is Dr. Hugh H. Hussey, Medical Editor of the Academy's journal, GP.

The Urological X-ray Conferences, which were announced in the October issue of the MEDICAL ANNALS at the request of Dr. William P. Herbst, are continuing during the winter and spring months. Physicians who are interested are cordially invited to attend. Meetings will be held at 8 p.m. in the following institutions:

January 20—Freedmen's Hospital
February 17—Veterans Administration (Mount Alto) Hospital
March 24—U. S. Naval Medical Center
April 21—D. C. General Hospital
May 19—Georgetown University Hospital

The Washington Academy of Surgery will hold a dinner and scientific program, February 14, at the Kennedy-Warren. Dr. Richard V. Cattell, of the Lahey Clinic, Boston, will be the guest speaker; his topic, "Secondary Operations on the Biliary Tract." Members and guests will meet for dinner at 7 p.m. Presiding will be Dr. W. Ross Morris, President of the Academy.

The Seventh Annual Symposium on Recent Advances in the Study of Venereal Diseases will be held in the auditorium of the Department of HEW, April 28 and 29. As usual, the sessions will be open to all interested physicians and workers in allied fields, who are also invited to participate in the program.

Prospective contributors are urged to communicate as early as possible with Dr. C. A. Smith, Chief, Venereal Disease Program, Public Health Service, HEW, Washington 25, D. C. Requests for a place on the program should be accompanied by titles and at least a tentative abstract of the paper. Final abstracts must be in Dr. Smith's hands by February 1, 1955. For information regarding the proper form for submitting abstracts, call Dr. Smith's office, Executive 3-6300, Extension 2374.

Thirty-seven Washington doctors registered for the **Eighth Clinical Meeting of the American Medical Association,** held in Miami, Florida, November 29–December 2, 1954. Three scientific papers presented at the meeting were authored by members of the District Medical Society:

"Anesthesiology and General Surgery," Dr. Donald Stubbs

"Intolerance to Milk—Clinical Observations," Dr. Preston A. McLendon

"Peripheral Vascular Disease," Dr. Andrew G. Prandoni

Washington talent also showed up in the Scientific Exhibit. The program listed the following subjects and exhibitors:

"The Symptoms of Diabetes Mellitus," Dr. James M. Moss, Georgetown University School of Medicine

"A Simple Blood Prothrombin Test for the Control of Dicumarol Therapy," Dr. Benjamin Manchester, George Washington University School of Medicine

"New Concepts in Diagnosis and Treatment of Toxemia of Pregnancy," Dr. Frank A. Finnerty, Jr., Georgetown University School of Medicine

"American Association of Blood Banks," Dr. Oscar B. Hunter, Jr.

"Hydrocortisone Topical Ointment in Dermatology," Dr. James Q. Gant, Jr.

"Breath Sounds on Tape," Drs. Robert J. Anderson and Armand E. Brodeur, U. S. Department of Health, Education and Welfare, PHS, and Dr. William B. Walsh, Georgetown University School of Medicine

"Heart Sounds on Tape," Dr. William H. Stewart, U. S. Department of Health, Education and Welfare, PHS, and Dr. W. Proctor Harvey, Georgetown University School of Medicine

Dr. Milton C. Cobey assisted in the demonstration of a special exhibit on fractures.

A new feature of the Clinical Meeting this year was the Health Fair for the general public. More than 80 exhibits concerning what's new in healthful living and medical care were displayed by 32 organizations throughout the country.

The Eastern Section of the American Federation for Clinical Research held its annual meeting in Washington, December 3 and 4. The first day's meetings were held in the Medical Society's auditorium, the second day's at the Clinical Center in Bethesda. Dr. Laurence H. Kyle, Chairman of the Section, presided at the opening session on both days.

Members of the District Medical Society participated in the presentation of five papers. Titles and authors were:

"Body Fluids in Hypertension and Mild Heart Failure," Drs. M. Walser, B. J. Duffy and W. Griffith, Bethesda, Md.

"Pulmonary Function in Bronchiectasis," Dr. M. Henry Williams, Jr.

"Evidence of Active Vasoconstriction in the Pulmonary Circulation of the Dog in Response to Pressor Amines," Drs. John C. Rose, Edward D. Freis, Charles A. Hufnagel and Edmund A. Massullo

"Aschoff Bodies in the Left Auricular Appendages of Patients with Mitral Stenosis: A Clinico-pathologic Study, including Postoperative Follow-up," Drs. Benjamin Manchester, Thomas M. Scotti, Nardelle L. Reynolds, and Wilhelmina H. Dawson

"The Effect of Changing the Position of a Dipole in the Esophagus on the Sagittal Vector Calculated from an Anterior and Posterior V-Chest Lead," Drs. Albert D. Kistin and Aaron Birenbaum

Dr. George E. Schreiner was in charge of the program, assisted by Dr. John M. Evans and Dr. Thomas J. Kennedy. The meeting concluded with a tour of facilities of the new Clinical Center.

The Washington Chapter of AFCL will hold its next meeting in the Medical Society's auditorium, February 14.

The newly organized **Washington Chapter of the Alumni Association of Jefferson Medical College** celebrated its founding with a formal dinner party at the Willard Hotel, December 4. Dr. George A. Bennett, Dean of Jefferson Medical College, and Dr. Edward Bauer, Professor of Pediatrics at Jefferson, were the guest speakers. Among those present for the occasion were Major General Howard McC. Snyder, an alumnus, who is physician to President Eisenhower, and Dr. Francis M. Forster, Dean of Georgetown University School of Medicine, formerly associated with Jefferson in the Department of Neurology. Dr. Everett Gordon was banquet chairman.

Officers of the Chapter are: Dr. Aaron Deitz, Hyattsville, Md., *President*; Dr. James P. Scanlon, *Secretary*; and Dr. Adolph Friedman, *Treasurer*. The group plans to have two meetings per year, the next one to be held in the spring as a scientific session. Application for membership should be made with Dr. Scanlon, 1922 Eye Street, N.W., or with Dr. Friedman, Farragut Medical Building.

The Medical Society's **Section on Ophthalmology** met at the Kennedy-Warren for dinner and program, December 15. Dr. A. Gerard DeVoe, of New York City, was present to speak on "Surgery of the Lids."

The Tenth Annual Founders Lecture of the Medico-Chirurgical Society of the District of Columbia was given by Dr. Asa G. Yancey, Chief of the Surgical Service of Veterans Administration Hospital, Tuskegee, Ala., November 18. The title of the address was "The Surgical Program of a Veterans Administration Hospital, 1948–1954."

Dr. Preston A. McLendon, President of the Medical Society of the District of Columbia, who was among the invited guests, made a few remarks, as did Dr. W. Montague Cobb, President of the Medico-Chirurgical Society. Music was furnished by the Men's Glee Club of the Junior Class of Howard University School of Medicine.

GENERAL NEWS

A new, short course offering expert instruction and helpful suggestions on the correct way of utilizing **"Standard Nomenclature of Diseases and Operations"** in the hospital, doctor's office or clinic will be offered at the AMA Headquarters in Chicago, February 7, 8 and 9.

Sponsored for the first time by the American Medical Association, the three-day Institute program will be divided into three parts: (1) lectures covering basic principles, construction, and installation plus discussion on the tumor and operation sections and handling of specific problems; (2) anatomy as it pertains to the topographic section, and (3) practice in coding to be offered at two evening sessions.

Application blanks are now available and may be secured by writing to the AMA 535 North Dearborn Street, Chicago 10, Illinois. Because of limited facilities, regristration will be limited to 150 "students."

Instructors will be Adaline C. Hayden, Associate Editor of Standard Nomenclature, and Dr. Edward T. Thompson, Chief of Programs Operation, Hospital Facilities, PHS, Washington, D. C.

Applications are being accepted by the Board of Civil Service Examiners, St. Elizabeths Hospital, Washington 20, D. C., for **examination for Medical Officer for intern and resident-in-training positions in St. Elizabeths Hospital.** Appointments to these positions will be open, July 1, 1955.

To qualify for these positions, applicants must have had appropriate medical education and training or experience. Forms may be obtained from the United States Civil Service Commission, Washington 25, D. C.

"Videclinic," a special closed-circuit television program to bring new advances in medicine to physicians quickly, will be presented coast to coast, Wednesday, February 9, by the **American Medical Association** in coöperation with **Smith, Kline and French Laboratories**. The program will be on heart disease. The Medical Society of the District of Columbia will act as host in Washington at the Mayflower Hotel where the telecast is scheduled for showing at 9:00 p.m.

A series of **radio programs on "Challenge of Good Medical Care,"** produced weekly by the **George Washington University**, are being presented over radio station WGMS on Saturdays from 3 to 3:30 p.m.

The programs, which are a part of the annual University of the Air series, are designed to give the public a better understanding of new developments and advances in medicine, particularly as related to the research, treatment and teaching activities of the University.

The following programs are scheduled:

January 29: "Rehabilitation," panel discussion under the direction of Dr. Irene Tamagna, Director of the University Hospital's Medical Integration and Rehabilitation Unit

February 5: "Efforts of Medical Schools to Furnish You with Good Doctors," Dr. Walter A. Bloedorn, Dean of the School of Medicine.

The following programs have been presented:

December 4: "Medical Progress Through Research," panel discussion under the direction of Dr. Angus M. Griffin, Professor of Bacteriology

December 11: "Mental Health and How to Achieve It," Dr. Winfred Overholser, Professor of Psychiatry, and Superintendent of St. Elizabeths Hospital

December 18: "Medical Uses of Atomic Energy," panel discussion under the direction of Dr. Louis K. Alpert, Clinical Professor of Medicine

January 8: "Babies of Today," panel discussion under the direction of Dr. John Parks, Professor of Obstetrics and Gynecology, and Dr. Preston A. McLendon, Professor of Pediatrics.

January 15: "Puzzling Problem of Arthritis," panel discussion under the direction of Dr. Thomas McPherson Brown, Professor of Medicine

January 22: "Safe Surgery for Older People," panel discussion under the direction of Dr. Brian Blades, Professor of Surgery

Ciba Pharmaceutical Products, Inc., in coöperation with the American Medical Association, is currently sponsoring a weekly, 15-minute television show entitled **"Horizons."** The program presents a documentary account of medicine in the news. It is broadcast live in Washington on Sundays at 9:15 p.m. over WMAL-TV.

Dr. Preston A. McLendon, Professor of Pediatrics, George Washington University School of Medicine, was the principal speaker, December 19. He spoke on "Tomorrow's Babies."

A program describing the atomic medicine research being carried on in the **Radioisotope Laboratory of George Washington University** under the direction of **Dr. Louis K. Alpert,** Clinical Professor of Medicine, was broadcast over the Voice of America to millions of radio listeners in Europe, Asia and South America, December 6. The broadcast originated in the University Hospital and was one of a series by the Voice of America on "Peacetime Uses of Atomic Energy."

George Washington University School of Medicine opened its new **Arthritis Research Laboratory,** November 22, with informal ceremonies. **Dr. Thomas McPherson Brown,** Professor of Medicine, is director of the arthritis research program.

The research to be carried on at the laboratory, which is located on the seventh floor of the Hospital, will be a continuation and expansion of the studies carried on by Dr. Brown and his associates since 1935. Dr. Brown is working on a "new concept of the basic mechanism of rheumatic diseases," whereby indications are that "rheumatic diseases may be potentially completely controlled, if not eliminated."

Funds for setting up the laboratory were provided by a grant of $12,000 from the Eugene and Agnes Meyer Foundation. A special research microscope was donated by Mr. Meyer.

Georgetown University School of Medicine was the recipient recently of $44,476 in grants from the Public Health Service. **Dr. Edward D. Freis,** Adjunct Clinical Professor of Medicine, will benefit

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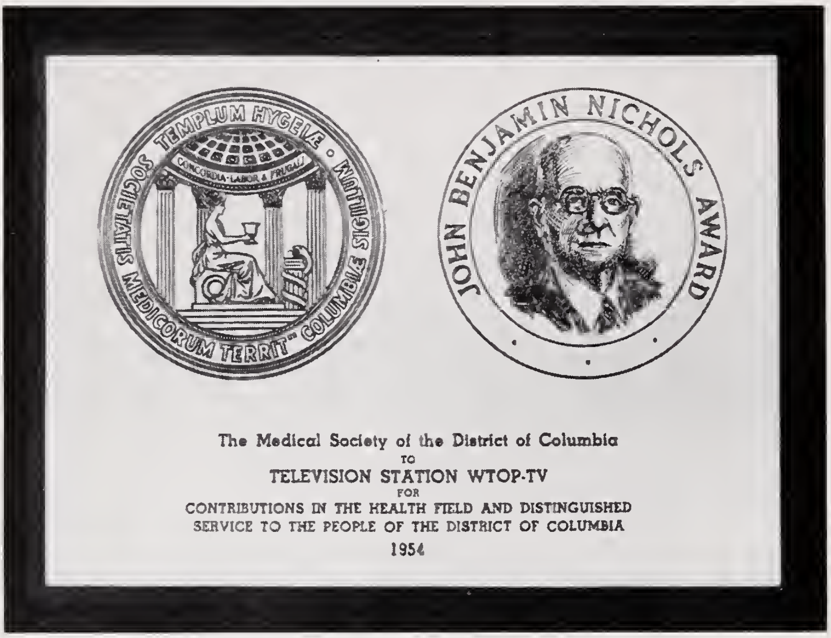
SOCIETATIS MEDICORUM TERRIT. COLUMBIAE SIGILLUM
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JOHN BENJAMIN NICHOLS AWARD

The Medical Society of the District of Columbia
TO
TELEVISION STATION WTOP-TV
FOR
CONTRIBUTIONS IN THE HEALTH FIELD AND DISTINGUISHED SERVICE TO THE PEOPLE OF THE DISTRICT OF COLUMBIA
1954

REPRODUCTION OF JOHN BENJAMIN NICHOLS AWARD

Above is a reproduction of the bronze plaque in mahogany frame awarded, November 2, 1954, to Station WTOP-TV during the recent First Interstate Scientific Assembly. The John Benjamin Nichols Award, which was first conferred in 1953 upon the Variety Club of Washington, is an annual award to a layman or a lay organization which has made an outstanding contribution to the betterment of the health of the people of the District of Columbia.

by two of the grants: $15,266 for research in chemotherapy of hypertension, and $7,257 for "Transcapillary Exchange of Permeable Tracer Substances." **Dr. W. Proctor Harvey,** Assistant Professor of Medicine, was given $4,763 for studies in the correction of aortic valve insufficiency; **Dr. John C. Rose,** Instructor in Medicine, $8,334, for research in the circulation in the left ventricle. To **Dr. Roger Baker,** Professor of Surgery, was allocated $8,856 for a project entitled "Relationship of Altered Connective Tissue Ground Substance to Experimental Renal Calculi."

A $4,000 grant has been awarded **George Washington University School of Medicine** by the National Drug Company for use in research relating to atherosclerosis. The research will be under the direction of **Dr. John M. Evans,** Associate Clinical Professor of Medicine, and will involve studying the role of fats in causing hardening of the arteries and seeking to learn the effects of heparin and other similar drugs on blood proteins and fats. Initial studies in this field were begun at George Washington University in 1952 with the aid of funds from the Washington Heart Association.

The District of Columbia Commissioners have increased the **annual license fees** for physicians from $2 to $4 as of January 1, 1955.

PERSONALS

Dr. Verne K. Harvey, Medical Director of the U. S. Civil Service Commission, was the recipient of a Certificate for Distinguished Service at a testimonial luncheon at the Hotel Washington, December 8. The recognition was a dual one from The President's Committee on Employment of the Physically Handicapped and the Civil Service Commission.

In the war years, 1942–45, 69,842 disabled were placed in Government jobs. Since 1945, when placements have been more difficult than in wartime, jobs have been found in the Government for 82,750 according to estimates of the Civil Service Commission.

Dr. Harvey, who is an Associate member of the Medical Society of the District of Columbia, represents the Commission on a newly formed Inter-Agency Council on Dental Affairs, made up of representatives of 10 departments and agencies of the

Federal Government concerned with dentistry. The new council is headed by Dr. Leo J. Schoeny, of New Orleans, of the Office of Defense Mobilization. Formation of the council marks the first time that an effort has been made to bring into single focus all major activities of the Government relating to the dental profession. A meeting was held on December 3 jointly with the Inter-Agency Council on Medical Affairs.

Dr. Preston A. McLendon, President of the D. C. Medical Society, **and Dr. Edward J. Stieglitz** took part in a symposium on "Constructive Medicine in Aging: Predictable Stresses of Middle Life," which was held at the Netherland Plaza Hotel in Cincinnati, Ohio, December 14. Dr. McLendon spoke on "Adaptation of Maturity" and Dr. Stieglitz, on "Constructive Medicine in Aging: A Therapeutic Objective."

The Wm. S. Merrell Company, of Cincinnati, which sponsored the symposium, has been promoting research in the field of gerontological research for some time and recently dedicated a new laboratory for increased study in this field.

Dr. Sol Katz, Chief of the Division of Pulmonary Diseases, D. C. General Hospital, addressed the 11th Annual Meeting of the Southern Chapter of the American College of Chest Physicians in St. Louis, Mo., November 8. The subject of his address was "Pleural and Pericardial Biopsy."

Dr. Daniel F. Lynch, President of the American Dental Association, was a speaker at the 30th Annual Session of the Greater New York Dental Meeting, which was held at the Hotel Statler, New York, December 6–10. His subject was "Leadership in Dentistry." Dr. Lynch has long been an Associate member of the District Medical Society.

Dr. Monroe J. Romansky, Associate Professor of Medicine, George Washington University School of Medicine, was in Havana, Cuba, November 18, where he gave a talk on "Current Trends in Antibiotic Therapy" before the medical staff of the Calixto Garcia University Hospital.

At the meeting of the Association of Military Surgeons of the United States in Washington, November 28–December 1, Dr. Romansky read a paper on "Use of the Newer Antibiotics."

Dr. John A. Swartwout, Chief Anesthesiologist at the Arlington General Hospital, presented a paper on "Sodium Pentothal, Its Properties and Uses" before the 25th Annual Convention of the Pan American Homeopathic Medical Congress in Rio de Janeiro, Brazil, October 2–13.

Dr. Joseph Cowan has been elected President of the Washington Chapter of the Ohio State University Alumni Association. Election of officers was held at a dinner meeting, December 4, at the Officers Club in the Naval Gun Factory.

Dr. A. Earl Vivino, Medical Director of the Georgetown University Health Service, has been elected President of the District of Columbia College Health Association.

Dr. Albert D. Kistin, Assistant Clinical Professor of Medicine, George Washington University School of Medicine, discussed "Recent Developments in the Diagnosis and Treatment of Heart Diseases" before the William Beaumont Society, honorary medical society, at the Cosmos Club, November 23.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Relations, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
November 3	Dr. Zigmond M. Lebensohn	Moderator of discussion of film on early adolescence, "The Age of Turmoil"	District of Columbia Mental Health Association
November 24	Dr. Theodore C. C. Fong	Community Responsibilities to the Aged	Armed Services Committee, Jewish Welfare Board
November 27	Dr. Leonard A. Scheele	Building Better Health	New Era Club
December 7	Dr. Theodore C. C. Fong	The Challenge of Geriatrics	D. C. Practical Nurses Association

BOOK REVIEWS

Review of Medical Microbiology. Ernest Jawetz, Ph.D., M.D., Professor of Bacteriology and Lecturer in Medicine and Pediatrics, University of California School of Medicine, San Francisco; Joseph L. Melnick, Ph.D., Professor of Epidemiology, Yale University School of Medicine, New Haven; and Edward A. Adelberg, Ph.D., Assistant Professor of Bacteriology, University of California, Berkeley. Price, paper, $4.50. Pp. 360. Los Altos, Calif.: Lange Medical Publications, 1954.

This 360-page Review can be divided into three sections of almost equal length. The first discusses bacterial cytology, metabolism, variation, cultivation, classification, antibacterial agents and chemotherapy, and antigens and antibodies. The second is devoted to the bacteria, fungi and rickettsiae, which are dealt with under the general headings: morphology and identification, antigenic structure, toxins and enzymes, pathogenesis, pathology, clinical findings, diagnostic lab tests, treatment, and epidemiology and control. The third describes viruses and the virus diseases.

The authors have been successful in producing a brief and up-to-date summary which will be of value to the medical student and house officer as well as the practicing physician. The orientation is as clinical as it is bacteriological, describing concisely the symptoms, signs, and course of infectious diseases, as well as antibiotic therapy. Treatment with the tetracycline drugs is included. The types of specimens for diagnostic tests of specific diseases are well described.

Presented in a clear, logical style; complete and accurate in description; containing a minimum of tables and graphs; published in large, easy-to-read print, the Review can be a valuable assist to the student as well as a reference for the physician.

Sydney P. Hecker, M.D.

A Ciba Foundation Symposium—Peripheral Circulation in Man. G. E. W. Wolstenholme, O. B. E., M.A., M.B., B.Ch., and J. S. Freeman, M.B., B.S., D.P.H., editors for the Ciba Foundation. Assisted by Joan Etherington. Price, $6.00. Pp. 219, with 72 illustrations. Boston: Little, 1954.

The papers and discussions which comprise this Symposium, while dealing for the most part with basic physiologic considerations, contain much valuable clinical information. The introductory discussion of methods for measuring blood flow affords the reader a good foundation for the subsequent chapters.

Early sections deal chiefly with a critique of various methods of measurement of peripheral blood flow. Each of the several methods discussed has practical advantages, but no one method appears generally useful.

The later portions consider problems of greater clinical value and application. Of note among these are discussions on Reflex Control of Cutaneous Circulation; Vasomotor Denervation; Anatomic Observations on Peripheral Ischaemia in Man, and Functional Disorders of the Circulation.

This Symposium, although of specific interest to those primarily interested in peripheral vascular disease, provides excellent discussion of fundamental physiology of general interest. The manner of presentation is intriguing, particularly with regard to the discussions, wherein one might imagine being in attendance at a seminar at which pertinent and sometimes provocative questions and topics are discussed by recognized experts in this field.

Howard S. Madigan, M.D.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Standard Values in Nutrition and Metabolism. Being the second fascicle of a Handbook of Biological Data. Prepared under the direction of the Committee on the Handbook of Biological Data, American Institute of Biological Sciences, The National Research Council. Edited by Errett C. Albritton, A.B., M.D., Fry Professor of Physiology, The George Washington University. Price, paper, $6.50. Pp. 380. Philadelphia: Saunders, 1954.

Pediatric Diagnosis. Morris Green, M.D., Assistant Professor of Pediatrics, Yale University School of Medicine, and Julius B. Richmond, M.D., Professor and Chairman of the Department of Pediatrics, State University of New York College of Medicine at Syracuse. Price, $10.00. Pp. 436. Philadelphia: Saunders, 1954.

The Ciba Collection of Medical Illustrations. Volume 2. A Compilation of Paintings on the Normal and Pathologic Anatomy of the Reproductive System. Prepared by Frank H. Netter, M.D.; edited by Ernst Oppenheimer, M.D., with a foreword by John Rock, M.D., Clinical Professor of Gynecology, Harvard Medical School. Price, $13.00. Pp. 286. Summit, N. J.: Ciba Pharmaceutical Products, Inc., 1954.

HARRY ATWOOD FOWLER, B.Sc., M.D., F.A.C.S.
(1872–1954)

Dr. Harry A. Fowler, retired Washington urologist, died, November 18, 1954, at Emergency Hospital, where he had resided as a permanent guest since March of this year. His office was at Stoneleigh Court when he retired six years ago. He resided for many years at the Shoreham Hotel and more recently at the Quebec House.

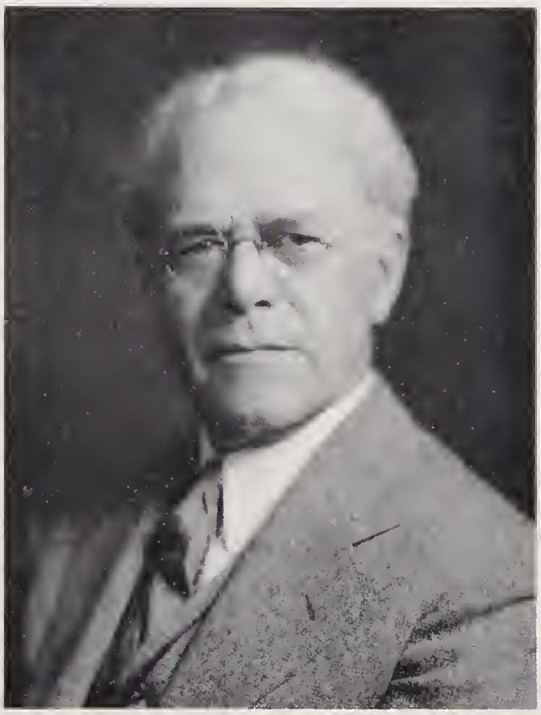
Dr. Fowler was born in Cambridge, Mass., September 22, 1872, the son of Joseph B. and Elizabeth Plummer Fowler. He attended the public schools of East Pittston, Maine, and graduated from LaCrosse, Wisconsin, High School. In 1895 he received his degree in sicence from the University of Minnesota, and in 1901 his medical degree from Johns Hopkins Medical School. He interned the following year at Johns Hopkins Hospital.

After coming to Washington in 1903, where he entered private practice, Dr. Fowler joined the staff of the Eastern Dispensary and established a Department of Urology at Casualty Hospital. He was appointed head of the Department of Urology at both Freedmen's Hospital, where he founded the urological clinic, and Emergency Hospital, holding the latter post until his retirement in 1948. He had been a member of the attending staff at Emergency since 1915, and was a member of its Board of Directors. He was a consultant to Veterans Administration (Mt. Alto) Hospital. He was called in as a consultant in President Woodrow Wilson's illness.

Dr. Fowler was President of the Medical Society of the District of Columbia in 1932–33 and the accompanying photograph shows him as he appeared at that time. He had been an Active member since 1904 and a Life member since 1945. He was Past President of the Association of Genito-Urinary Surgeons; a founder and member of the Washington Urological Society; Past Secretary of the American Urological Association; a Fellow of the American College of Surgeons; and a member of the American Medical Association and the International Urological Society. He was certified by the American Board of Urology.

He was a member of Phi Gamma Delta Fraternity and the Chevy Chase Club; he was a former member of the Congressional, Cosmos, and University Clubs.

Dr. Fowler had traveled extensively and had contributed numerous articles to the literature in the field of genitourinary surgery. He had also prepared chapters for various medical books.



HARRY A. FOWLER, M.D.

His wife, Lena Hahn Fowler, whom he married in 1903, died in 1953. Survivors are a son, Harry R. Fowler, of 2219 California Street, N.W.; and two brothers, the Reverend Carlton Fowler, of Huntington Park, Calif., and Abner Fowler, of Des Moines, Iowa.

CHARLES O. KNOTT, M.D.
(1881–1954)

Dr. Charles O. Knott, retired Washington physician, died, November 13, 1954, at the Kensington Gardens Nursing Home, Kensington, Md. His home was at 1341 Randolph Street, N.W.

Born in Mt. Solon, Virginia, February 2, 1881, the son of William M. and Mary M. Knott, he attended Virginia public schools and Dunsmore Business College in Staunton, Va. He taught for a time in the Virginia public schools.

After coming to Washington in 1907, he worked as chief timekeeper at the Navy Yard and attended Emerson Institute and George Washington University School of Medicine, graduating from the latter in 1912. While practicing medicine, he was on the staffs of Providence and George Washington University Hospitals. He also was an instructor at George Washington University from 1918 to 1931, when he retired from practice because of ill health.

Dr. Knott was elected to Active membership in the Medical Society of the District of Columbia in 1925 and transferred to Associate membership in 1932.

His wife, Mrs. Ada Shiplet Knott, whom he married in 1905, died in 1931. He is survived by a son, Dr. William L. Knott, 5004 Newport Avenue, Westgate, Md.; a brother, A. C. Knott, Mt. Solon, Va.; and a sister, Mrs. Ed Michael, Martinsburg, West Virginia.

Physiology of Atteriovenous Fistulas—Schreiner

(*Continued from page 11*)

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Study Projects at Clinical Center

(*Continued from page 44*)

ships between metabolic and hemodynamic alterations and psychological stress in patients with diabetes, cardiovacular disease and other somatic disorders.

Dental medicine studies of the National Institute of Dental Research include oral leukoplakia, chronic stomatitis, temporomandibular joint syndrome, unusual increased bone densities, cranial growth and development in children, neuromuscular disorders affecting cranial nerves V, VII, IX, X and XII, periodontal disease, cysts, and dental anesthesia.

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CANCER CHEMOTHERAPY*†

JEANNE C. BATEMAN, M.D.
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ONE of the difficult problems facing medicine today is the treatment of far-advanced or widespread cancer. The effectiveness of surgery and irradiation, often so brilliant in primary tumors and accessible localized metastases, is hampered by gross or microscopic dissemination of tumor cells. Endocrine management of advanced cancer has been given extensive trial in the last few years. Approximately half the patients with mammary cancer treated by hormones have shown some degree of subjective improvement. In one fifth of the patients there has been objective evidence of regression in disease. Such distressing complications as masculinization and fluid retention may be outbalanced by the temporary relief of pain and bone-healing which occurs in some cases. Mammary cancers, like prostatic tumors, however, even when responsive to endocrine management, eventually escape its controlling effects. It is therefore understandable that diligent effort continues in the search for agents which may offer further palliation in these treatment failures.

Hundreds of chemical compounds have been symthesized and tested against animal tumors. Many gave early promise; a few proved of considerable value in the treatment of the leukemias and the lymphomas. The results in other cancers have been more limited. This disparity between effectiveness of these agents against lymphomata and epithelial tumors in humans may be due to the relatively slow rate of growth in the latter. It is thought that chemotherapeutic agents destroy only cells which are susceptible by virtue of active metabolism and division. If this is true, effective drugs against human epithelial tumors will have to be administered chronically and be well tolerated for long periods by host cells.

The following remarks concern the so-called "solid" tumors, omitting the lymphomata, which group of neoplastic diseases are responsive to a number of chemotherapeutic agents. I shall briefly review the literature with respect to use of the mustard drugs in solid tumors and then discuss at greater length a promising newcomer.

The best known of the mustard agents is methyl bis (beta-chloroethyl) amine, otherwise called HN_2 (table 1). This drug is strongly vesicant and must be given intravascularly. The standard dose is 0.1 mg. per kg. of body weight given intravenously on 4 successive days. The total dose may be administered in 1 or 2 injections; occasionally it is increased by one half, and in patients with poor hematopoietic tolerance it may be reduced. In the intra-arterial use of nitrogen mustard, the principal artery leading into the tumor area is entered by insertion of a polyethylene catheter under sterile surgical technic. The tubing should be left in position and kept patent with saline and heparin. HN_2 can be injected at 8-, 12-, or 24-hour intervals for 5 to 15 days in a total daily dose of 3 to 6 mg.

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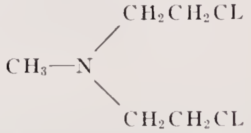
* Delivered at the First Interstate Scientific Assembly of the Medical Society of the District of Columbia and the Medical Society of Virginia in Washington, D. C., November 3, 1954.

† Aided by a grant from the Lederle Laboratories Division of the American Cyanamid Company, Pearl River, New York.

TABLE 1

Methyl Bis (Beta-Chloroethyl) Amine HCl Nitrogen Mustard or HN_2



Dose and Route:
I.V. 0.1 mg./kg. body weight × 4 days
I.A. 3–6 mg. daily × 5–15 days
Blood count q. 4–7 days

Side-effects:
Severe nausea and vomiting, control with barbiturates; weakness secondary to electrolyte loss; leukopenia; thrombocytopenia; aplasia of marrow. (Intra-arterially—hemorrhage, infection, thrombotic phenomena)

TABLE 2

Results of HN_2 Therapy

DIAGNOSIS	ROUTE	NO. PTS.	IMPROVED	SUBJECTIVELY	OBJECTIVELY	DURATION	REMARKS
Pulmonary Ca.[1-24]	I.V.	383	183	161	85	3 days-1.5 yrs.	Avg. 1 mo.
	I.A.	3	2	1	2	4 days-1 mo.	
Melanoma[1-4, 7, 13, 15, 19, 20, 21, 25]	I.V.	23	0				
	I.A.	2	1	1	1	2 mos.	
Liver[7, 21, 26]	I.V.	2	0				
	I.A.	36	22			4–12 mos.	5 patients
Cervix[2, 4, 20, 27, 28, 29]	I.V.	3	1				
	I.A.	28	14	5	14	1 month avg.	
H & N[4, 8, 13, 17, 21, 22, 27, 30, 31, 32]	I.V.	21	1		1		
	I.A.	33	14	15	6	1–3 mos.	Approx.
G.I.[3, 5, 6, 8, 13, 15, 17, 21, 27]	I.V.	18	3	1	1	1–5 mos.	Approx.
	I.A.	3	2		2	?	
G.U.[8, 15, 17, 21, 30]	I.V.	7	0				
	I.A.	3	3	2	1	1–2 mos.	
Seminoma & Prostate[13, 21, 22, 27]	I.V.	9	5	2	1	1 mo.	Approx.
	I.A.	1	1		1	1 mo.	Approx.
Ovary[2, 3, 4, 20, 33]	I.V.	5	1	1	1	3 yrs.	(Dysgerminoma)
	I.A.	2	0				
Vagina[27, 29]	I.A.	2	1				
Chorionepithelioma[34]	I.V.	1	1	1	1	1 yr.	
Breast[6, 7, 17, 32]	I.V.	5	0				
	I.A.	2	1	1		2 mos.	Relief of pain
Brain[7, 17, 27, 31]	I.V.	1	0				
	I.A.	5	3	1	2	1–6 mos.	
Fibrosarcoma[1, 2, 6, 15, 17, 19, 21, 27, 32]	I.V.	8	1	1			
	I.A.	3	3	1	3	1 mo.	
Rhabdomyosarcoma[20, 35]	I.V.	1	1			1 yr.	
	I.A.	2	1	1	1		
Neuroblastoma[3, 7, 13, 36, 37]	I.V.	7	3			½–1 mo.	
Ewing's sarcoma[21]	I.V.	2	1			8½ mos.	
Chondrosarcoma[19]	I.V.	2	1			3 yrs.	

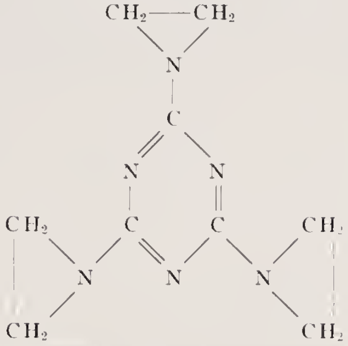
The total dosage safely given by the intra-arterial route is greater than the maximum tolerated intravenously. A limitation of this method lies in the difficulty of repeating intra-arterial therapy. Side-effects, such as nausea, vomiting, weakness, and hematopoietic depression, usually can be controlled or avoided. Intra-arterial therapy has the added hazard of hemorrhage or infection at the cannula site, as well as the occurrence of occasional thrombotic phenomena.

HN_2 has been given trial in practically every type of tumor. Table 2 lists only those in which therapy has resulted in a certain percentage of palliation. In 383 reported cases of pulmonary cancer, 183 or 48 per cent received some degree of palliation lasting from 3 days to 1½ years with an average of about 1 month. Subjective improvement occurred much more frequently than did objective. Intra-arterial therapy did not appear to improve these results. No patients with melanoma were benefited by intravenous HN_2; 1 was improved for 2 months after intra-arterial treatment. In cancer of the cervix, head and neck intra-arterial nitrogen mustard was palliative for 1 to 3 months; 5 patients with liver cancer were improved for 4 to 12 months. With the exception of improvement lasting 8½ months in 1 patient with Ewing's sarcoma, 1 year in 1 case each of chorionepithelioma and of rhabdomyosarcoma, and 3 years in 1 case each of chondrosarcoma and of dysgerminoma, intravenous HN_2 therapy has apparently been of limited value in other solid tumors.

Triethylene melamine, commonly known as TEM (table 3) is another polyfunctioning alkylating agent which in addition to its therapeutic usefulness in lymphomata has the advantage of oral as well as intravenous administration. The dose, except in very sensitive tumors, is 5 to 10 mg. daily for 2 to 4 days or 1 mg. daily for 15 days. Such courses can be repeated at monthly intervals, blood count permitting. Nausea and vomiting are less severe and less frequent than following HN_2. Hematopoietic depression is more unpredictable, however.

TABLE 3

Triethylene Melamine (TEM)



Route: Oral, I.V., I.M.

Dose (Oral): 5–10 mg. daily × 2–4; 1 mg. daily × 15; repeat monthly, modify according to CBC; frequent blood counts important; give drug on empty stomach.

Side-effects: Nausea and vomiting; leukopenia, thrombocytopenia, aplasia of marrow.

Table 4 shows the TEM-treated cases reported in the literature, exclusive of leukemias and lymphomata. Again, only those types of tumors in which any degree of improvement occurred are included. Twelve of 23 patients with pulmonary cancer were improved for up to 4 weeks, 4 of fibrosarcoma for 1 to 24 weeks, 3 of neuroblastomas for 2 to 4 weeks, 3 of cancer of the ovary for an unstated period of time, and 1 patient with lymphoepithelioma for over 18 months.

TABLE 4

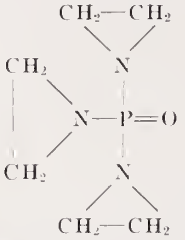
Results of TEM Therapy

DIAGNOSIS	NO. PTS.	IMPROVED	SUBJECTIVE	OBJECTIVE	REMARKS
Pulmonary Ca.[38-45]	23	12	1±	1±	↑4 weeks
Fibrosarcoma[38, 46]	5	4		4	1–24+ weeks
Neuroblastoma[39, 44, 47]	5	3	3	3	2–4 weeks
Ca. ovary[40, 44]	5	3		1	
Lymphoepithelioma[40]	3	3		1	18+ months
G.I.[38, 44]	6	3		±	2 weeks
H & N[38, 39, 40, 45, 48]	9	1		±	
Cervix[38, 44]	2	1	±		
Ca. testes[39]	1	1		±	
Melanoma[39, 45, 46, 48]	5	1	±		
Thymoma[39]	1	1		±	
Ewing's tumor[42, 46]	2	1		±	

Triethylene phosphoramide (table 5) or TEPA, another member of this group of drugs, is generally administered intramuscularly in an oily suspension. The tolerated dose varies widely.

TABLE 5

Triethylene Phosphoramide (TEPA)



Route: I.M., 1–2% suspension in peanut oil
Dose: Varies widely. Initial dose approximately 0.15 to 0.20 mg. per kg. body weight per day. Blood count q. 2–5 days.
Side-effects: Local pain and tenderness; abdominal cramps, nausea; leukopenia, thrombocytopenia, aplasia of marrow.
Effects on tumor in 7–89 days (Farber[49])

Initially 0.15 to 0.20 mg. per kg. of body weight per day may be given by the intramuscular route. Side-effects include local pain and tenderness, abdominal cramps, nausea, and hematopoietic depression. According to Farber,[49] effect on the tumor may not become apparent for 7 to 89 days. Table 6 summarizes the cases reported in the literature and includes a few of our own. Response to this agent was noted in 7 out of 37 patients with melanoma, 5 patients with neuroblastoma, 2 with sarcoma, 1 with mammary cancer. Equivocal improvement occurred in a few other cases.

TABLE 6

Results of TEPA Therapy

DIAGNOSIS	NO. PTS.	IMPROVED	SUBJECTIVE	OBJECTIVE	REMARKS
Melanoma[49-52]	37	7		5	2–10 months
Neuroblastoma[49, 50]	7	5	1	5	5–10 weeks
Sarcoma[49, 50]	5	2	1	2	
Breast[50]	1	1	1		
Pancreas[49, 51]	3	3±			Decreased pain
Wilms' tumor[49, 50]	9	2±			
Angiosarcoma[49]	1	1±			
Hemangio-endothelioma[49]	1	1±			

Table 7 lists a group of other carcinolytic agents and the results of their use in various tumors. Coley's toxin improved 36 of 175 patients with osteogenic sarcoma; 11 of 62 patients with miscellaneous tumors were reported improved by the use of cytotoxic serum; 8 of 10 cases of ovarian cancer responded to hemisulfur for ½ to 8 months. Urethane was beneficial in 4 of 8 patients with prostatic cancer and aminopterin in 7 of 20 patients with breast cancer; however, of these individuals, 3 succumbed from toxic effects of the drug. Nitromin, an N-oxide of HN_2, has received extensive trial by the Japanese and appears to have considerable promise.

In 1953 Shay and his co-workers[73] reported their observations on the treatment of leukemia and allied disorders with triethylene thiophosphoramide or thioTEPA. He noted regression of skin nodules in 2 patients with metastatic mammary cancer. Our observations confirm those of Shay, and the following data concern the first 99 patients treated by us.

ThioTEPA resembles TEPA in structural formula except for the substitution of an O by an S atom. Table 8 summarizes the dose schedule employed in this group of 99 patients. ThioTEPA* was dissolved in sterile distilled water in a concentration of 10 mg. per c.c., sterilized by filtration and stored at 5°C. Early in this study thioTEPA solution was administered undiluted by the intravenous and intramuscular routes only. It soon became apparent that larger doses could be injected directly into the tumor than could be introduced by other methods. This produced the maximum effect locally and also caused alterations in tumor elsewhere in the body. Subsequently, in addition to intramuscular and intravenous injections thioTEPA was given

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* Kindly supplied by Dr. James M. Ruegsegger of the Lederle Laboratories Division of the American Cyanamid Company, Pearl River, New York.

TABLE 7

Miscellaneous "Carcinolytic" Agents

DRUG	DIAGNOSIS	NO. PTS.	IMPROVED	SUBJECTIVELY	OBJECTIVELY	DURATION	REMARKS
Coley's toxin[53]	Osteogenic Ca.	175	36				
Guanazola[54]	Misc.	9	0				
Alpha peltatin[55]	Squamous Ca.	2	?				Diffuse necrosis
Krebiozen[56, 57]	Misc.	220	0				
Polysaccharides[58, 59, 60]	Melanoma	1	1		1		
	Sarcoma	1	1		1		Returned to work
	Misc.	3	0				
Anti-reticulo cytotoxic serum[61]	Misc.	62	11	10	1		1 died
Urethane[62-65]	Prostatic	8	4	4	3		1 died of treatment
	Misc.	6	0				
Pteropterin[66, 67, 68]	Breast	6	2	1	2	5–10 mos.	
	Testes	1	1		1		
	Prostate	1	1		1		
	Melanoma	1	1		1		
	Misc.	14	2		2		
Aminopterin[69, 70]	Breast	20	7		6		2 died of treatment
	Rhabdomyosarcoma	2	2	2	2		
	Seminoma	2	1	1	1		
	H & N	1	1				
	Pulmonary	1	±		±		
Methyl tris (B-chloroethyl) amine HCl[25]	Breast	1	1		1		Decreased pleural effusion
	Melanoma	3	1		1		
Hemisulfur[71]	Ovary	10	8	8	7	½–8 mos.	
	Stomach	4	1	1	1		
	Prostate	3	2		2		
	Misc.	14	0				
Nitromin (N-oxide of HN_2)[72]							

by intra-arterial, intrapleural, intraperitoneal, intrapericardial, and intracranial routes, as well as directly into the tumor, in doses varying from 5 to 40 mg.

TABLE 8

Triethylene Thiophosphoramide Dose Schedules

ROUTE	AMOUNT	INTERVAL
Intramuscular	10 mg.	Daily × 2–5, then 1–2 × week
Intravenous	5–20 mg.	Same
Intra-arterial	10–15 mg.	Daily × 4–6 days
Intrapleural	10–30 mg.	Weekly or longer
Intraperitoneal	20–30 mg.	Weekly or longer
Intrapericardial	15 mg.	Once in a single case
Intracranial	20–28 mg.	Every other day × 2
Into tumor masses	5–40 mg.	Weekly or longer

Dose reduced if WBC 5,000 or less
Therapy discontinued if WBC 3,000 or less

Except for the first few injections in certain cases, therapy was given at weekly intervals and always determined by the white blood cell level. Maximum white blood cell depression occurred in 2 to 3 weeks after a single dose of thioTEPA; a rapidly falling count was a danger sign. Thrombocytopenia followed a severe leukopenia in 3 patients. The only other side-effects were occasional pain on injection and occasional transient gastrointestinal upset or fever.

In table 9 these patients are summarized according to site of disease and response to therapy. The largest group consisted of 34 patients with mammary carcinoma; 25 volunteered subjective improvement; in 31 there was objective evidence of improvement lasting 4 to 11 months; 21 patients are now either in remission or continuing to improve. Patients with carcinoma of the ovary and of the central nervous system have

TABLE 9

Results of ThioTEPA Therapy

DIAGNOSIS	NO. PTS.	IMPROVED	SUBJECTIVELY	OBJECTIVELY	DURATION MONTHS	AVERAGE	REMARKS
Breast	34	33	25	31	4–11	5	21 continue to improve
Ovary	12	11	11	11	4–11	6	5 continue to improve
Cervix	3	2	1	2	1		
Central nervous system	5	5	2	5	5–11	7	2 continue to improve
Pulmonary	10	7	5	5	1–6	4	
H & N	10	6	5	6	1–5	3	
G.I.	12	7	4	4	1–7	3	
G.U.	3	2	1	1	4		
Thyroid	1	1	1	1	7+		
Thymoma	1	1	1		1		
Endothelioma	1	1		1	5+		
Sarcoma	2	2	1	1	1+		
Primary unknown	2	2	1	2	3+		

shown a high percentage of subjective and objective response to therapy. Approximately 83 per cent of the total group showed some degree of subjective and/or objective improvement.

The types of previous therapy received by the patients with mammary cancer are indicated in table 10. All had such far-advanced disease that neither surgery nor irradiation was feasible. In addition, 17 or 50 per cent had progressive disease in spite of energetic hormone therapy.

TABLE 10

Mammary Cancer Treated with ThioTEPA

NUMBER OF CASES	PREVIOUS THERAPY
4	None
4	Radical mastectomy only
2	Irradiation only
1	Hormone only
6	Surgery and irradiation
2	Surgery and hormone
3	Irradiation and hormone
11	Surgery, irradiation and hormone
1	Surgery, irradiation, radio-active gold, intra-arterial HN_2, oral TEM

As can be seen from table 11, subjective improvement included increase in well-being, appetite, decrease in pain, pruritus secondary to extensive inflammatory carcinoma, dyspnea and cough, and dysphagia. Pain was not relieved in 2 patients with massive edema of the arm and in 1 with demonstrable tumor involvement of the brachial plexus. Objective improvement included regression of soft tissue lesions in 21 of 22 patients, partial to complete healing of ulceration in all, control of pleural effusion except in 3 patients who expired in 1, 4 and 10 weeks after beginning therapy, reduction in ascites in 2, X-ray evidence of healing of bone lesions in 6, and control of signs and symptoms of brain metastases in 4 cases.

TABLE 11

Results of Therapy with Triethylene Thiophosphoramide in Mammary Cancer

	NUMBER OF PATIENTS	IMPROVED	NO CHANGE
Subjective			
Well-being	34	14	20
Appetite	34	7	27
Pain	8	5	3
Pruritus	3	3	
Dyspnea	10	6	4
Cough	5	4	1
Dysphagia	1	1	
Objective			
Soft tissue lesions	22	21	1
Ulceration	6	6	
Pleural effusion	11	8	3
Ascites	2	2	
Bone lesions	10	6	4
Neurologic signs and symptoms	4	4	

Fourteen patients with far-advanced cancer have been treated with N-3 (oxapentamethylene)

N′N″ biethylene phosphoramide or ODEPA (table 12). This drug is similar in action to thioTEPA but must be used in approximately twice as large a dose. In this group of patients it was administered in routes similar to those employed for thioTEPA. Results of therapy were approximately the same with the exception of 1 case of melanoma in which some nodules have disappeared and no new ones have appeared in the 5 months of treatment.

TABLE 12

Response to N-3 (Oxapentamethylene) N′N″ Biethylene Phosphoramide (ODEPA)

PRIMARY SITE	NUMBER OF PATIENTS	EXCELLENT	GOOD	FAIR	NONE
Breast	7	3	2	2	
H & N	3		1	1	1
Lung	1			1	
Cervix	1			1	
Melanoma	2	1		1	

Our observations suggest that the phosphoramides are:

1. Most effective in adenocarcinoma of breast and ovary and tumors of the central nervous system.

2. Most effective when given locally, especially intrapleurally or into abdominal masses.

3. Mass of tumor is important, since effect on white blood count limits dose.

4. Drug action is slow; results are increasingly apparent over many weeks' time.

5. Therapy must be individualized for patient, type of tumor, location of tumor, and extent of disease.

In conclusion, it appears that the phosphoramides have a promising future in the palliation and control of many types of neoplastic disease. They will greatly simplify cancer therapy, since they can be administered in the clinic or office. Observations so far indicate that many patients can be kept active and comfortable indefinitely by careful maintenance therapy.

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WHAT IS A NEW DRUG?*

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THE Federal Food, Drug, and Cosmetic Act of 1938 includes a section which, in effect, prohibits the introduction into interstate commerce of any new drug unless an application for it is effective. Such an application must include full reports of investigations which have been made to show whether or not the drug is safe for use, a complete description of the procedure and controls used in the manufacturing, processing and packing of the drug, and the general manufacturing facilities of the firm or individual. These details of manufacturing procedure are required to ensure that a product may be produced which is satisfactory from the standpoint of identity, strength, quality and purity. The application must also include a statement of the complete quantitative composition of the drug and copies of the proposed labeling. The primary purpose of the application is to show that the drug may be used with safety under the proposed labeling. In other words, the burden of proof for safety is on the distributor before the drug may be marketed. Before 1938 a new drug could be distributed without making any presentation whatsoever to the Food and Drug Administration, and that is also true at the present time for a product which is not a new drug.

In spite of the fact that a distributor would ordinarily satisfy himself that a drug was safe, the preparation of a new drug application usually entails extra work, expense, and often delay. Accordingly this procedure is followed only when necessary, that is, when the product is a new drug. In many instances there is no question as to whether a drug is new or old, but there are many borderline cases which give rise to differences of opinion in this connection. Consequently, it is necessary to have some standard or definition which will aid in a decision.

Such a definition is included in the Act and I quote directly as follows:

"The term 'new drug' means (1) Any drug, the composition of which is such that such drug is not generally recognized, among experts qualified by scientific training and experience to evaluate the safety of drugs, as safe for use under the conditions prescribed, recommended or suggested in the labeling thereof. . . ."

I would like to direct your attention to certain specific words and phrases in this definition. In the first place, it is noted that it is lack of recognition of safety which constitutes newness. This is qualified in that the lack of recognition of safety is among experts with the training and experience to evaluate the safety of drugs, presumably those who are particularly qualified in their respective specialties or fields of medicine. The word "generally" is also significant—"generally recognized as safe." Recognition of safety by one or two experts, possibly as a result of their own investigations, is insufficient to remove a drug from "new drug" status. Very important also is the concept that safety is considered from the standpoint of the "conditions prescribed, recommended or suggested in the labeling." We are often requested to offer an opinion on the new drug status of a product without being provided with the proposed labeling. We may be able to comply if it is a product which has not previously been used as a drug or if it is regarded as a new drug under almost any form of labeling. In the absence of labeling, however, we cannot express the opinion that a product is not a new drug without at least making a number of qualifications.

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* Read before a meeting of the Medical Society of the District of Columbia, October 13, 1954.

Incidentally, there is an exception included in the definition to the effect that if the drug were distributed under essentially the same labeling prior to the effective date of the 1938 Act, it is not a new drug even though it is not generally recognized as safe.

There is also a second paragraph in the definition of a new drug which is frequently overlooked or its significance not recognized. It is as follows:

"The term 'new drug' means (2) Any drug the composition of which is such that such drug as a result of investigations to determine its safety for use under such conditions has become so recognized, but which has not, otherwise than in such investigations, been used to a material extent or for a material time under such conditions."

In other words, even though a drug is recognized as safe under certain labeling as a result of investigations, it is still a new drug until it has been used for a material extent and for a material time. Even though an application for a drug has become effective and it is being marketed by a certain firm, it is still necessary for other firms to obtain their own effective applications before distributing it.

There is undoubtedly considerable wisdom involved in the second paragraph of the definition. When a new drug application is allowed to become effective we are reasonably sure that the product may be safely distributed and used under the conditions provided for in the labeling. Recognition of safety, however, is relative. Use of the drug under actual marketing conditions is a further test of safety. It has been the experience in more than one instance that a drug has been found to be less safe than was anticipated on the basis of reports of investigators. Such an occurrence is not entirely unexpected. During the investigative stage the drug may be used with particular care, with patients under close supervision and by men with special training and experience. Widespread distribution directly to the layman, or even as a prescription item is definitely a more rigid test of safety. Accordingly the provision in the law for a somewhat prolonged control under the new drug procedure is not without merit.

How long does a new drug maintain its new drug status? This is a question which naturally follows and is one which cannot be answered precisely. Each one requires individual consideration, and the answer depends on a number of factors. Marketing experience is a most important one. A relatively high incidence of complaints with respect to side-effects or serious toxic manifestations, or the necessity of adding restrictions to the labeling relative to dosage or to indications for use, may prolong the period of new drug status. The degree of distribution may be a determining factor. Extensive use without the occurrence of adverse effects will tend to shorten the time of control as a new drug. If there are difficulties in manufacturing control procedures such as with assay, maintenance of stability, or in the actual preparation of a pure or uniform product, a longer period may elapse before it is considered as not a new drug. If in the investigative studies an extremely wide margin of safety is indicated for a product, or if it is one for which there is some doubt that it should originally have been regarded as a new drug, reassurance of definite safety may require only a short marketing experience. In view of such a wide variation of circumstances for different preparations it is probably fortunate that an attempt was not made to specifically define what is meant by the terms "material extent" and "material time."

The legal definition of a new drug which has been discussed is further amplified by regulation. In this regulation there are 5 paragraphs, each presenting a different reason for considering a drug as new.

The first paragraph points out that not only the active ingredients of a product but also the so-called inactive ingredients, such as the menstruum, excipient, carrier, coating, or other components, may cause it to be a new drug. Attention has been called many times to the fact that it was the disastrous consequences of a vehicle, diethylene glycol in an elixir of sulfanilamide, which was responsible in no small part for the passage of the new drug section of the Act. In recent years many new agents have been introduced into pharmaceutical industry as dispersing agents, preservatives, solvents, stabilizers, etc., which are not even necessarily mentioned on the label. The physician and patient are usually unaware of the identity of these components, and their safety is taken for granted. It sometimes happens that we are more concerned with components of the vehicle than with the active ingredients, not only from the standpoint of systemic effects but also of local reactions at the site of an injection.

The second paragraph states that a combination of two or more old drugs may be a new drug. This is readily understandable. There may be a possibility of synergism necessitating the experimental determination of safe dosage. A question of chemical incompatibility may arise. The stability of an ingredient may be affected, or one of the components may be changed to yield an undesirable compound. In many instances, such combinations, on the basis of extraneous experience, are not regarded as new drugs, but in certain cases we consider specific demonstration of safety desirable.

In the third paragraph of the regulation it is stated in effect that a change in the proportions of the ingredients of an old combination of drugs may cause it to be a new drug. Although there are undoubtedly many instances in which change in proportions would not present a problem of safety, it is conceivable that such might occur. If one of the ingredients were a corrective added to antagonize an undesirable side-action of an active component, a lowering of the proportion of the corrective might result in adverse effects. If one ingredient of a tablet were definitely more potent than a second ingredient with a similar type of action, an increase in the tablet content of the potent ingredient even with a decrease of the same weight unit of the second ingredient would result in a product definitely more potent than the original tablet. It is necessary, of course, to give due consideration to all such proposed changes.

The fourth paragraph brings out the concept that a drug commonly recognized as safe for a certain medical use may become a new drug if offered for a new purpose, to produce a different action, or to affect another structure of the body. It may be argued that if a drug is safe in a certain dosage for one therapeutic purpose it should be safe in the same dosage if used for something else. I believe that this is often true. However, certain pathologic conditions may modify the metabolism of a drug and consequently its concentration in the body with parallel changes in degree and in duration of action. Many drugs are destroyed in the liver. Others are excreted by the kidneys. Impaired function of these organs would be expected to result in undue responses to otherwise safe doses. Pathology in an organ may increase its susceptibility to the toxic effects of a drug. Mercurial diuretics are used successfully in the treatment of edema of congestive heart failure but are contraindicated for edema of acute nephritis. When a hormone well recognized in certain fields of therapy is advocated for some other endocrinopathic condition on theoretical or preliminary investigative grounds, the question will arise: What effect will this condition have on the response to the hormone, not only of the condition itself, but of other functions of the body? Other examples could be cited where questions of safety may arise when a drug recognized as safe in one field is offered for a new use. Each proposal is an individual problem, and a sound opinion on whether or not the drug, for this new use, becomes a new drug can be reached only after thorough consideration.

Included in the final paragraph of the regulation is the statement that newness of a drug may arise by reason of newness of a dosage, or method or duration of administration or other condition of use prescribed, recommended or suggested in the labeling. These points, I believe, are self-evident and require little discussion. An appreciable increase in dosage beyond usual experience will naturally pose the problem of safety. A new method of administration likewise requires investigation before general recognition of safety is possible. A drug safe for oral use may not be safe for parenteral use in the same dosage or even in reduced dosage. In most instances the necessary degree of reduction of dosage below that of the oral form is one of the main problems. Usually more rapid absorption results from subcutaneous or intramuscular injection than from oral administration, causing steeper and higher blood concentration curves. The by-passing of the hepatic circulation may be a factor. Local reactions at the site of injection should be considered. The tolerated rate of intravenous injections must be explored. Stability in solution and problems of sterility demand attention. Even the introduction of an oral dosage form after recognition of safety for parenteral administration may present problems. This has been exemplified recently in hexamethonium, which requires much larger oral than parenteral doses as a result of incomplete and erratic absorption with consequent lower predictability of response and increased side-effects referable to the intestine. A drug with established use for systemic action may be a new drug for topical application to the skin or mucous membranes, since questions of primary irritation, sensitization and tolerated concentration must be answered.

An increase in the recommended duration of administration may place an old drug in new drug status. The possibilities of cumulation, the development of increased sensitivity, and toxic effects on the tissues from prolonged use are matters for consideration.

"The newness of other condition of use" is, of course, broad terminology and serves to cover conditions which cannot be included under subjects previously discussed but which may well arise in causing a product to be a new drug. It might relate to the severity of illness in a certain disease, or to the degree of an emergency. It is possible that a drug use might be recognized as justified as a last resort measure in certain instances but would not be so recognized under other circumstances. There may be other examples which might well fall under this heading.

This discussion has followed closely the law and the regulation with respect to the definition of a new drug, since we are guided by them when we are requested to express an opinion on the new drug status of a proposed product. It is realized that even with these guideposts there are many borderline cases. At times we do not know whether a proposal for some combination of old drugs is merely the product of a pencil and a sheet of paper or whether it has a background of considerable investigation. In such instances we are much less hesitant to offer the opinion that a product is not a new drug if we are presented with a report of its successful use. When we express such an opinion, however, we are sharing with the distributor responsibility for its safety. Accordingly it is natural that we adopt a conservative attitude.

A tentative decision as to whether a product is a new drug may be made by either the Food and Drug Administration or the manufacturer. The latter may request our opinion in this matter, or he may form his own opinion without consulting us and proceed accordingly. In actual practice we are commonly consulted and our advice is usually accepted. If a serious difference of opinion arises which cannot be resolved, the Food and Drug Administration does not have jurisdiction in deciding the matter. This power is held by the Federal courts.

I have attempted to answer the question: What is a new drug, and to give you in a general way the criteria which we employ in reaching an opinion.

DEVICES AND DELUSIONS*

The Physician Looks at Medical Devices under the Federal Food, Drug, and Cosmetic Act

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IT IS a pleasure to have this opportunity to present to you a picture of the activities of the Food and Drug Administration as they relate to the device provisions of the Federal Food, Drug, and Cosmetic Act for the protection of the public health, and to outline the manner in which the physician shares in providing this protection and some of the ways in which he benefits from this statute.

Would you like to be able to expand the atoms of the body with "Z-rays" and cure diseases of all parts of the body? This promise was made for a device offered for sale to the general public for $50 until Federal court action brought by the Food and Drug Administration stopped its distribution.

The Federal authority to regulate the interstate shipment of medical devices was provided for the first time by the Federal Food, Drug, and Cosmetic Act to this Administration in June, 1938.

Other governmental agencies, through specific legislation, also offer protection in the device field. The Federal Trade Commission offers protection against unfair competition and deceptive practices in advertising, and the Post Office Department through its Fraud Section takes action to prevent fraudulent use of the mails.

Although the term "device" does not appear in the designation of the Act, devices share with foods, drugs, and cosmetics in the enforcement activities of the Administration. "Device" is defined in the statute as any instrument, apparatus, or contrivance, including its components, parts, and accessories, intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals, or to affect the structure or any function of the body of man or other animals.

The labeling requirements for devices closely parallel those for drugs. Except for the declaration of active ingredients, a device must meet the same labeling provisions as does a drug. The responsibility for labeling which insures truthful, safe and efficacious use of a device is solely that of the manufacturer or distributor.

The Act provides that a device shall be held to be misbranded if its labeling is false or misleading in any particular, if its label fails to bear the name and place of business of the manufacturer, packer or distributor, an accurate statement of quantity of contents, adequate directions for use and adequate warnings against misuse. The device must not be dangerous to health.

Exemption for Prescription Devices

It should be noted that there is provision through regulations in the Act to exempt from adequate directions for use what may be termed "prescription devices." Such devices are recognized separately since their potentiality for harmful effect, method of use, or collateral measures necessary for use require the supervision of a practitioner licensed by law to direct their safe use, and hence "adequate directions for use" cannot be prepared. This exemption is provided if all of the following conditions are met: (1) The device is offered for sale only to or on the prescription or other order of the physician in his professional practice; (2) the label (other than surgical instruments) bears the statement: "Caution, Federal law restricts this device to sale by or on the order of a physician, dentist, veterinarian, or other practitioner licensed by law of the state in which he practices"; and (3) the labeling of the device readily available to licensed practitioners supplies information as to the use of the device.

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* Read in the absence of Dr. Kerlan by Dr. K. D. Campbell before a meeting of the Medical Society of the District of Columbia, October 13, 1954.

In this class of devices would be diathermy, X-ray machines, and ultraviolet lamps for therapeutic use.

ADULTERATION OF A DEVICE

A device is classed as adulterated if its strength differs from, or its purity or quality falls below that which it is purported or represented to possess. This terminology may seem strange when applied to machines or apparatus, but this section of the Act is invoked, for example, when the Administration encounters clinical thermometers which fail to record accurately.

The Act demands a high level of responsibility, and manufacturers generally have accepted and carried out their legal obligations. Unfortunately, there is active promotion of many devices, which requires constant surveillance.

Many physicians too readily take for granted the integrity of the devices which are encountered daily in their professional and personal lives. Yet, I am confident, too little thought has been given by them to the teamwork maintained by reputable manufacturers, law enforcement food and drug agencies, scientists and courts to provide this favorable situation.

LEGAL PROHIBITIONS

The Act is designed entirely as a protective statute. Violative goods shipped in interstate commerce may be seized and the shipper may be prosecuted criminally or enjoined from further violations. When the responsible persons contest the Government's action, the case goes to trial. The Administration is largely dependent on the physician as an expert witness to uphold the scientific views based on his own previous personal experience with the device, or on the results of a special clinical trial which he may have conducted independently or for the Government.

The physician is in a unique position to help us uncover violations by reporting to the Administration any article which he suspects. Through such coöperation, seriously misbranded devices may be promptly removed from the market and may thereby be a life-saving measure. The lack of safety of a device may be learned only after unsuspected untoward effects begin to appear following its use. The ill-effects could be so serious as to warrant notification of the medical profession to be on guard, or even the initiation of legal measures under the law to remove the offending article from commerce.

The sale of worthless gadgets to the public constitutes a real problem. The physical properties of such units as well as their clinical application must be carefully evaluated. There are, of course, other classes of devices which possess physical properties that can be employed by the public when adequate directions and warnings against misuse are supplied in those conditions in which they have recognized benefits. Too often the supplier fails to limit the therapeutic representations to the extent essential to avoid misleading the user. In the case of devices sold directly to the physician, the unit is very often submitted to the American Medical Association Council on Physical Medicine for acceptance based on scientific evaluation of the apparatus. It should be stressed that the devices should be obtained only from known reliable suppliers.

In the field of devices new uses are recommended for those already on the market, and these require evaluation. Moreover, new devices are being investigated for the first time. Although the Act does not require any formal application to establish the safety of new devices, such as is prescribed in the case of new drugs, the responsibility of the manufacturer or distributor is equally applicable. Currently the clinical application of ultrasound is being investigated. Only through critical study by well-trained scientific workers will it be possible to establish the mode of action, safety, and clinical field of usefulness of such devices.

In the consideration of appropriate claims for devices the view cannot be escaped that, in the past, indications for use of many devices were developed empirically.

Misbranded Devices

Outstanding examples of currently encountered fraudulent devices reveal the blatant therapeutic claims made for particular gadgets. Earlier in the paper reference is made to the Zerrett Applicator, which was claimed to give off an energy to expand the atoms of the body. This unit was the basis of an involved court action. Although purported to be based on the latest scientific principles it was popularly referred to as a "plastic dumbbell." It consisted of two plastic water tumblers filled partially with water, sealed with paraffin, joined at their mouths by scotch tape, and set into paraffin in the bottom of plastic baby rattles. It was claimed to introduce into the human body the energy given off by "expanded hydrogen atoms" alleged to be present in the liquid sealed in the tumblers. The user was to hold the article in his hands, keeping the feet flatly on the floor without crossing the legs, or while reclining. This, it was claimed, caused the atoms of the body to expand and bring health through the hands. This article, costing $50, was offered to correct obesity and abnormal thinness due to glandular malfunctioning, correct diarrhea and constipation, reverse the aging process, rejuvenate the user, and cure (and I quote) "any disease known to mankind."

Presentation of this case in court necessitated extensive preparation on the part of the Administration, since the burden of proof is on the Government in any action it brings. Physicists were engaged to test the physical properties of the device for its energy output. Persons with diseases diagnosed and treated by physicians who had on their own used the device for its curative effects were sought out as well as their personal physicians, who were requested to testify as to their diagnoses in order to establish the lack of clinical value of the device. In addition, recognized experts in medicine were asked to undertake special clinical testing in certain diseases in order to establish further the lack of usefulness of this device.

The jury returned a verdict of guilty against the defendants after a week's trial in Federal district court, during which the physicists presented accurate data showing that the device gave off no measurable energy; the lay users, supported by testimony of their personal physicians, related their experiences as to the ineffectiveness of the device, and the medical experts testified as to the worthlessness of the article.

This case readily demonstrates the extensive preparation which is required generally to establish the worthlessness of a single device which patently is misrepresented.

Another device which attracted wide publicity because of its unwarranted claims was popularly called the "Magic Spike." Its promotion represented one of the most shameful attempts to cheat the public at the expense of their health which the Administration has brought to the Federal courts. The "Magic Spike" or Vrilium Tube, the defendants claimed, had radioactive powers that would cure disease when it was worn on the body. Purchasers were using it for cancer, diabetes, leukemia, thyroid disturbances, ulcers, arthritis, and other serious diseases. The gadget is a brass tube 2 inches long and about as thick as a tally card pencil, with a safety pin attached. It sold for $300. In it was a tiny glass tube filled with barium chloride worth $\frac{1}{2000}$ of a cent.

Thirty-five scientific experts testified for the Government to show that the "Magic Spike" was incapable of treating or curing diseases. Most pathetic of the lay-user witnesses was the man who described the death of his diabetic son, who abandoned insulin and placed his faith on the "Magic Spike."

In sentencing the defendants, Judge LaBuy of Chicago, who heard the case, said, "The sale of the device constitutes a gross fraud on the public. You have imposed on the poor sick who in their anxiety for relief would try anything at any price. You have fooled the trusting, the credulous and the gullible. The quackery you have employed is the more despicable because those who were deceived into believing in your fake remedy failed to pursue the treatment proven by medical science to be effective in preventing and curing diseases. The credulous belief in the efficacy of your useless product is the greatest danger inherent in quackery. It discourages and prevents those who use it from seeking proper medical treatment and the results of such neglect are often fatal."

The defendants in this case were each sentenced to a year in jail, fined $1,000, and ordered to pay the cost of the trial. The firm also was fined $1,000.

We have encountered devices which have been offered for the treatment of all of the organs and systems of the body. Among them is the Miracle Hearing Aid, an instrument priced at $19.85, which consists of wire bent in the shape of a tuning fork which was supposed to pick up sound vibrations and transmit them to a latex rubber disc serving as an "artificial ear drum." The entire contraption was intended to be poked into the ear and was represented to be capable of enabling deaf or hard of hearing persons to hear normally. Distribution was launched during 1952 through agents who set up offices in Washington, D.C., East Orange, N.J., Chicago, and Los Angeles. Agents "fitted" the devices by trying tuners made of different kinds of wire, supposed to vary the resonance. Tests showed they were ineffective. Seizure of devices and literature put an end to the promotion.

Another flagrantly misbranded device, called "Spectro-Chrome," is a 1,000-watt lamp in a cabinet supplied with different-colored glasses to fit an aperture through which the light bathes the patient. With head pointing toward the north, the patient received "tonations" at favorable times of the day, with a "Favorscope" supplied to correct for "solar, lunar, terrestrial radiant and gravitational influences" based on "vibrant breath phenomena" as adapted from Yoga. It was claimed that, by using appropriate glasses to color the light as required for the particular areas of the body to be treated, the patient could receive effective treatment for diabetes, cancer, tuberculosis, syphilis and a long list of other serious ailments. Dinshah P. Ghadiali, who manufactured the apparatus and who scorns the use of drugs, said: "Give me a case of appendicitis, and I will send the man back in one night, having his appendix inside of him instead of in a glass bottle and $300 out."

This lamp, more marvelous than Aladdin's, was not for sale. To get it one had to join an "Institute" for a fee of $90. The lamp was then furnished free. Through this scheme we know that at least 5,000 lamps were distributed. Ghadiali himself claimed the figure was 9,000. With the gadget, for a price, were distributed so-called encyclopedias and other literature which gave voluminous information about the use of the lamp and sought to cloak the scheme in oriental mysticism and sanctity.

The first action against the lamp was a single seizure. After a trial which lasted 30 days, the jury rendered a verdict for the Government. The court was so incensed at the abuse of public welfare that it supplemented the decree condemning the lamp with an injunction against its further distribution. Ghadiali, nevertheless, continued to ship it. A campaign of seizures followed which did not stop him. Criminal prosecution was then filed against Ghadiali and his corporation. During this trial, which lasted 42 days, the Government presented an array of physicians and relatives of victims who had used the device and died from the diseases it was represented to cure. Speaking from the witness stand, the son of a man who had died from diabetes while being treated with the device said to Ghadiali: "You told my father to stop insulin! You said for him to eat plenty of brown sugar and starches! You said he would recover with Spectro-Chrome!" The jury brought in a verdict of guilty, and the court imposed against Ghadiali and his corporation fines totaling $20,000 and a 3-year prison sentence against Ghadiali, but imprisonment was suspended on the condition that the business be abandoned. The Institute was dissolved, but "Visible Spectrum Research Corp." was soon formed, with headquarters in Milwaukee, and the movement was kept going through "planet" meetings and intrastate assembling and shipment of the machines. Ghadiali was not openly active during a 5-year probation period, but when that ended in the summer of 1953 he became the head of the Visible Spectrum group and is now directing the "planet" activities in various parts of the country.

In March, 1954 the Electronic Medical Foundation of San Francisco consented to an injunction decree which barred the responsible officers of the Foundation from shipping 13 types of electronic devices used for the diagnosis and treatment of serious diseases. The names of the machines are:

Oscilloclast
Oscillotron
Regulatory Push Button Shortwave Oscilloclast
Sweep Oscillotron
Sinusoidal Four-in-One Shortwave Oscillotron
Galvanic Five-in-One Shortwave Oscillotron
Depolaray
Depolatron
Depolaray Chair
Depolatron Chair
Depolaray Junior
Electropad
New Depolaray Junior

In addition to these machines the decree bans interstate shipment of "Blood Specimen Carriers" for use in a diagnostic machine, the Radioscope, which is maintained at the Foundation's offices in San Francisco. It also bans the shipment of any similar electrical devices for producing or measuring low-power radio waves or magnetic energy or any accessories or parts of such devices.

The Government charged that all the devices are misbranded, since they are not capable of diagnosing or curing any disease, much less the hundreds of serious diseases which it was claimed they will diagnose and treat effectively.

According to the injunction complaint, the Foundation's activities were divided in two major parts: The sale of a blood "diagnostic" service and the distribution of "therapeutic" devices. The diagnostic service was based upon the theory that any ailment can be diagnosed by measuring emanations from a dried blood spot on sterile paper. Practitioners who mailed in the blood spots taken from their patients received, for a fee, a diagnosis blank filled in with the diseases each patient was supposed to have, their location in the body, and the recommended "dial settings" for treatment with the Foundation's devices.

The Government charged that the Radioscope was represented as a "tuning apparatus" by which the defendants asserted it is possible to distinguish the alleged characteristic "radio frequencies" associated with different diseases. This device is a box containing dials, lights, and wires, and a slot in which may be placed a specimen carrier of filter paper bearing dried blood of the patient. Metal plates connected with the box are held by a person who is designated the "reagent" and who is supposed to serve as a "detector" for the radiations allegedly emanating from the blood spot. The operator of the machine strokes the abdomen of the "reagent" with a plastic wand. If the wand "sticks" to a particular location, that is supposed to be a manifestation of an "electronic reaction," and the operator allegedly can determine from this the identity, kind, location and significance of any disease present.

Investigating the blood diagnostic service, Food and Drug inspectors found it was incapable of distinguishing the blood of animals or birds from that of man, or that of the living from the dead. Inspectors arranged to submit blood from an amputee and got back a report of arthritic involvement of the right foot and ankle which the man had lost several years before.

The blood of a dead man brought a diagnosis of colitis, while a sample from an 11-week-old rooster submitted for a "recheck" on the previous diagnosis of a man, resulted in a report of sinus infection and dental caries. When a hamster's blood was sent in as that of a man, inspectors received a diagnosis of "tuberculous involvement," melancholia, and mixed toxins of the colon.

A spot of coal-tar dye sent as the blood of a woman was reported to indicate systemic toxemia contributing to lowered vitality and anemic tendencies.

Food and Drug Administration physicians found that in general the diagnostic reports consisted of a potpourri of medical jargon. A large portion of the reports refer to "common cold toxins," "colonic toxemia," and "lowered glandular functions," combined with references to the patient's history as supplied by the practitioner.

Each report included dial settings for treatment with the various "therapeutic" machines distributed by the foundation. Laboratory tests of the latter equipment made by Food and Drug Administration scientists showed that the machines are of two types or combinations of these. One type consists of a coil producing a magnetic field similar to that created by home electric appliances such as a vacuum cleaner or electric doorbell. The other type is a low-powered transmitter generating radio waves in the 43-megacycle region (i.e., the short wave band used by police, bus companies, railroads, etc.). Extensive tests of the devices showed that they are worthless for any therapeutic purpose.

The Foundation's literature, distributed to practitioners throughout the country, recommends use of the machines for treating hundreds of disease conditions including:

Anemia
Angina pectoris
Asthma
Breast tumors
Bursitis
Cancer
Cataract
Coronary thrombosis
Cystitis
Enlarged prostate
Gastric ulcer
High blood pressure
Hyperthyroidism
Inflammatory rheumatism
Inguinal hernia
Mastoiditis
Septic sore throat
Uterine tumors

Treatments are also recommended for minor or symptomatic conditions such as colds, backache, hornet stings, coughing, confusion, dizziness, indigestion, nausea, vomiting, night sweats, loss of weight, and rapid heart.

The injunction decree prohibits the shipping of any of the devices which are misbranded under the Federal Food, Drug and Cosmetic Act because of any representation or suggestion in the labeling that it has value in the treatment or diagnosis of the diseases listed in the complaint or any other kind of disease, or has value in affecting any structure or function of the body; or which purports to produce low-power radio waves or electromagnetic energy, or low-frequency alternating magnetic energy which, when applied to the body, "normalizes" diseased tissue, thereby correcting disease conditions.

This Administration has obtained constructive guidance in the evaluation of labeling of devices for several years from the committee which the American Congress of Physical Medicine and Rehabilitation has set up to coöperate with the Administration, and has benefited greatly from this assistance. It is to our mutual interest to rid the market of worthless gadgets and to provide truthful labeling for the safe use of devices.

While this special group has helped us solve many problems, it cannot be emphasized too

(*Continued on page 106*)

UNORTHODOX CANCER REMEDIES*

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IN SELECTING the title of this paper several suggested themselves as being appropriate for the subject matter. "Cancer Quackery" was one title which seemed to fit some, if not all, of the situations involved, but because of possible legal implications such an appropriate and choice title had to be discarded.

"Unorthodox Cancer Remedies" refers to those preparations other than legitimate drugs, radium, surgery, X-ray and radioactive substances intended for the treatment of cancer. For purposes of discussion and to demonstrate the manner in which these preparations must be handled under the Federal Food, Drug, and Cosmetic Act, they are best divided into those of domestic origin and those of foreign origin. It is unnecessary to detail the reasons wherefore, but only those remedies with which the Food and Drug Administration has had direct contact may be included in this discourse.

The remedies to be discussed are as follows: "AF-2" or "Fattore AF-2," "H-11," "Tumolyse," and "Supertumolyse," which are of foreign origin; and the "Koch" and "Hoxsey" cancer remedies, which are of domestic origin. While there are several more domestic preparations they are not considered to be of sufficient importance to merit discussion at this time.

H-11 EXTRACT

This preparation first came to our attention in 1944 by way of a communication from a physician inquiring as to our reasons for denying an entry permit for shipment of the substance from England. At this time "H-11 Extract" was unknown to the Food and Drug Administration, but this blessed state of ignorance existed but a short time.

A cleverly managed publicity campaign developed, aimed not at the medical profession but at the general public. In a short time considerable pressure developed to permit the importation of the drug for the treatment of malignant disease. In almost every instance the requests came from lay persons rather than from physicians. After reviewing all of the facts available and corresponding with the promoters in England, the Administration decided that the preparation fell into the category of a new drug and that if it were properly labeled it could be released to physicians for investigational use.

Several publications came to our notice that were to be of great assistance in this matter. Some of the material was developed by the promoter of "H-11" and published in the *Kings College Gazette* for June, 1943, and some of it by independent workers. One publication was of interest since it outlined the theory of activity of the substance.

Originally parathyroid glands of oxen had been used in the preparation of the extract, after first precipitating parahormone. The final substance was said to be an acid-alcoholic extract of the glands. Owing to war conditions, it became impossible to obtain adequate supplies of the necessary material. The chemists involved in the preparation of "H-11" determined that the growth-inhibiting factor was present in human urine, and it was used as the source of the substance all during the war period.

The rationale upon which the extract was based was that the substance when injected into young animals inhibited normal growth to the extent that eventually growth ceased. These animals remained healthy in all other respects. The organs of the body were found to have undergone a reduction in size. This having been established, the theory evolved that if the extract had such an effect on normal tissue it must have the same effect on abnormal tissue.

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* Read in the absence of Dr. Granger by Dr. H. I. Weinstein before a meeting of the Medical Society of the District of Columbia, October 13, 1954.

Hosa Research Laboratories, Sunbury-on-Thames, England, published results of animal experimentation, demonstrating to their satisfaction that the administration of the extract produced regression of spontaneous tumors in a certain strain of mice. They stated that during the first 12 to 15 days after treatment started the tumors grew, but at a reduced rate. Regression then began and was completed in 30 to 40 days. They made the observation that a certain small number of "freak" tumors failed to be affected, and it was thought this might be due to faulty dosage.

Two papers were subsequently published in England which refuted the work published by the manufacturer. One paper was published by the Imperial Cancer Institute of England, and the other by an independent research worker. Both of these papers denied any effects from the use of "H-11 Extract" on the specified animal tumors.

The Food and Drug Administration was faced with the problem of admitting or denying the importation of this preparation. It was finally decided to release the imports to the physicians who were treating the patients for whom the material was imported. As a condition the physician agreed to keep careful records of the course of the disease under treatment and to make such records available for our review. All physicians involved willingly agreed to such an arrangement.

From October 10, 1942 until August 6, 1946, 145 shipments were released for the treatment of practically every known type of malignant condition. Many of these patients had received other and recognized forms of therapy prior to receiving "H-11." The duration of administration varied from 1 injection to continuous use over a period of from 1 to 1½ years. Many, if not all, of these patients were doomed and some were *in extremis* when the drug reached the hands of their physician. Our records disclose that not 1 patient survived. This is not to say that their death can be attributed to the use of "H-11," but rather that the drug did not exert a favorable influence upon the outcome of the disease.

The opinions of the physicians as to the value of the drug are of interest. Typical comments are: "Increased appetite," "Slept better," "Patient more comfortable." The majority, however, believed that the extract was worthless and without therapeutic merit. In not 1 instance was the opinion expressed that the course of the disease had been favorably influenced.

In the meantime we had obtained a quantity of the material to duplicate the study published by the Imperial Cancer Institute. The study was done by experienced workers in a well known institution. The outcome demonstrated that the use of "H-11 Extract" did not in any way influence mouse tumors.

Since the drug had been determined to be a "new drug," and since the manufacturer had been informed as to the steps necessary for filing a new-drug application, it was his responsibility under the law to comply with such requirements. He apparently had no intention of doing so, and further importation of "H-11" was, therefore, denied.

FATTORE AF-2

In 1947 articles began to appear in Italian language newspapers in New York City extolling the virtues of a cancer treatment announced in Italy. The material was represented as an extract of the liver of young sheep, and was manufactured at the Institute of Guarnieri in Rome under the supervision of Professor Francesco Guarnieri. Following the publication of several such articles in the press, shipments of "AF-2" began to arrive in New York. When these importations were delayed in delivery to the consignee pending investigation the pressure became very heavy. The Administration decided to release these importations to the physician who was in attendance on condition that records of the treatment would be kept and that such records would be available for review by representatives of the Administration.

A total of 94 shipments of "AF-2" was received at the Customs Office of the Port of New York. The largest number of shipments, 33, was received in July, 1947. Subsequent shipments gradually decreased until the month of February, 1948, in which no shipments arrived. Of the total of 94 shipments, 54 were admitted conditionally upon receipt of an affidavit from a physician. The remaining 40 were ordered returned to the shipper either because there was no response to the detention notice, the importer refused to accept the package, or the death of the patient intervened before arrival of the material.

In coping with this problem we received considerable aid from a prominent New York physician. One of his associates had recently returned from Rome where he obtained firsthand information concerning "AF-2." We were informed that Professor Bastienelli of Rome had tried the preparation on more than 80 patients in the Cancer Institute. Professor Bastienelli was helpful in answering our inquiry; to quote from his letter, "None of the cases studied by us was influenced by the treatment."

Of 25 patients studied in this country, 6, for one reason or another, did not receive the "AF-2" released for their use. Diagnosis in 4 cases was not clearly established. Fifteen well-authenticated cases remain for evaluation. Ten of the 15 were females, and 5 were males, all between 50 and 70 years of age. There were 5 neoplasms of the breast, 3 of the stomach, 1 of the skin, and 1 each of the rectum, colon, uterus, lung, mandible and kidney. Of the 15 patients, 12 had recognizable metastases at start of the treatment. At some time in the course of their disease 13 of the patients had a pathologic examination at a recognized hospital or laboratory. Two of the patients had obviously inoperable malignancy with metastases. Thus it is believed that all 15 patients had a clear-cut diagnosis of malignancy at the start of their treatment with "AF-2."

At the time of administration of the drug the 15 patients had had their disease from 4 months to 5 years, the average duration being 2 years. The patients received either intravenously or intramuscularly between 20 and 300 c.c. of the material, the average amount being 80 c.c.

Two years after the inception of this therapy 3 patients remained alive; 1 patient at this time was moribund from a melanosarcoma. The other 2 patients, 1 with a malignant lesion of the breast and the other of the rectum, had had radical surgical intervention plus radiation therapy prior to receiving "AF-2."

The effect of the therapy was evaluated by the patients' physicians. In general, little or no objective improvement was noted although 1 neoplasm was said to have decreased in size and 1 patient's hemoglobin increased slightly. Six of the patients noted a decrease in pain and an increase in appetite. The most marked subjective improvement was noted in a patient who died within a month after therapy was instituted.

When the data had been accumulated and reviewed in the light of the information received from Professor Bastienelli, the decision was made to deny further imports of "AF-2."

One further instance occurred at the Port of New Orleans. The customs inspectors, in the course of their routine inspection, found a package containing 17 20-c.c. vials of "AF-2" hidden in a lifeboat. It was addressed to a physician in a southwestern city. Imports addressed to this physician had previously been denied. We later learned that the physician had a cousin in Italy who had arranged with an officer of the ship to smuggle the material into this country. Needless to say, the material was destroyed.

"Tumolyse" and "Supertumolyse"

These substances originated in the laboratory of a Belgian chemist about 1948. They were extracts from a fungus which grows on a certain variety of poplar tree. It was said that when this extract was injected into poplar trees parasitized by the fungus, the fungus ceased to grow. Based on the premise that "Tumolyse" and "Supertumolyse" could prevent the fungoid growth in trees, it was next applied to the treatment of human cancer.

This theory and treatment soon spread to Sweden and England. In the latter country the Humblet Laboratories soon were in commercial production of "Tumolyse" for export purposes, with an English physician, Dr. Myer, backing the entire operation.

A large and well-known medical institution in this country became sufficiently interested in the subject to send 2 highly trained physicians to England and Sweden to investigate the results of this therapy. They visited the laboratories of Dr. Myer and traveled widely to gather as much evidence as possible.

In London the examination of patients under treatment revealed no convincing evidence that the course of the disease was significantly altered. Dr. Myer was extremely secretive concerning the composition of the preparations, and equally fanciful about the mechanism of action. He stated that he had observed in the electron microscope that the nuclei of malignant cells moved in a clockwise fashion, whereas after exposure to "Tymolyse" their movement was counterclockwise. Although Dr. Myer repeatedly stated that no charge was made to the patients receiving the drug, the investigators were informed that he, Dr. Myer, was negotiating for the purchase of a second nursing home at a cost of 50,000 pounds.

Inspection of the laboratory where the material was prepared revealed a lack of the usual basic equipment of a chemical laboratory. A 1-liter Erlenmeyer flask filled with amber fluid was the finished product, and it was noted that there was a marked sediment present. This material was transferred to ampuls without sterile precautions. The investigators learned that at one time there were 21 deaths in a 24-hour period in Myer's nursing home following the administration of his materials.

The investigators then moved on to Sweden where the materials were under study at the Radium Hemmett. Here it was learned that radiation therapy was used in conjunction with "Tumolyse" and "Supertumolyse," which made evaluation difficult. A reputable Swedish investigator was in charge of the project, and he expressed the opinion that the substance increased the radiosensitivity of the tumors.

Upon their return the American investigators reported that the materials of unknown chemical composition had been employed in England and Sweden in the treatment of malignant disease. An evaluation of the facts indicated that there was no objective evidence that these substances significantly altered the course of the disease.

Subsequently a letter was addressed to Dr. Myer from the medical institution saying in effect that further exploration of "Tumolyse" and "Supertumolyse" in the therapy of malignant disease was not warranted at that time and additional discussion on the subject would be unnecessary.

These schemes seem to metastasize just as the disease which they are designed to cure. Within a short time, early in 1949, Dr. Myer appeared in the United States, bringing with him a quantity of the material, and he apparently convinced influential people that he had a positive cure for cancer. Soon after his New York appearance a demand for the importation of the preparations developed. In 1 month 100 30-c.c. ampuls were imported into this country.

In June of 1949 a New York hospital, urged on by the lay president of the board, who was convinced of the merit of the drugs, moved to set up a research project to further investigate "Tumolyse" and "Supertumolyse." For this purpose the Administration released importations of the materials, which under the Act were considered to be new drugs.

On June 22, 1949, 40 vials of the drugs arrived at the Port of New York, consigned to this hospital. The shipment was released for investigative purposes. A representative of the Administration had previously visited the institution to interview and discuss the project with members of the staff who were to carry out the research work and to furnish them forms with which to keep records of the treatment.

We subsequently learned that Dr. Myer was attempting to ship "Tumolyse" into this country consigned to private individuals and using a name other than "Tumolyse." A notice was sent to our various offices to refuse importations of this substance.

After the research project had been set up in the New York hospital we were unable to obtain firsthand information as to the outcome of the treatment. Not one of the record forms which had been furnished the staff was returned to us for review, nor were medical officers of the Food and Drug Administration able to interview anyone connected with the project.

It was possible to learn that a great percentage of the treated cases did not respond favorably and that the project was thought to have increased the mortality rate of the hospital. As a result, further study of these substances was abandoned. At this time imports of "Tumolyse" and "Supertumolyse" would be denied.

Koch Remedies

The foregoing discussion has dealt with preparations of foreign origin and the methods utilized in handling these preparations under the provisions of the Food, Drug, and Cosmetic Act. The following discussion will deal with domestic preparations, namely, those of "Koch" and "Hoxsey."

William Frederick Koch received his bachelor's and advanced degrees in chemistry from a large Midwestern institution in 1914. He moved on to a smaller but well-known medical school to teach physiology and to complete his course in medicine, receiving his M.D. degree in 1918. He continued on at the school until 1919 or 1920, at which time he announced his discoveries, resigned his teaching position, and entered the practice of medicine in Detroit, Michigan.

Koch had a number of preparations beginning with "tissue extractives," and eventually ending with his "antitoxins synthetic" which he called "Glyoxylide," "Malonide," and "Benzoquinone." He originally discovered his cure for cancer in an animal tissue extract which he called "tissue thrombin." This acted to "propagate a coagulation state throughout the cancer cell plasma." Later he claimed to have been able to synthesize the active principles of the tissue extract and so arrived at the product he called "Glyoxylide." The product "Malonide" is said to be a polymer of "Glyoxylide," and the higher one carries the dilution the more efficient the solution becomes. To carry out this theory the 2 preparations are distributed in a dilution of 10^{-12}. One well-known chemist, testifying for the Government, stated that such a dilution would result in no more than a few molecules of the substance per 2-c.c. ampul.

The general outline of Koch therapy is given in the sales literature as follows: "Cancer is an allergy of the reproductive mechanism of tissue cells. Allergy and malignancy are the direct results of the prolonged action of anaerobic toxins produced in residual, focal infections. The cure of cancer and allergy, therefore, involves primarily the cure of the most stubborn infections, acute or chronic, bacterial, virus and protozoan. Glyoxylide is especially recommended in cancer, allergy and infection. Malonide has served well in the allergies, but is slower than Glyoxylide and 1:4 Benzoquinone, which acts with extreme rapidity in acute infections. Improvement usually follows in minutes and full recovery in hours and days. Benzoquinone is not as efficient in cancer as Glyoxylide."

After due investigation by the Government, Koch was indicted for violating certain provisions of the Food, Drug, and Cosmetic Act. The trial began on January 12, 1943 and ended May 19, 1943, with a hung jury. The case was retried beginning February 19, 1946. It ended on July 23, 1946 in a mistrial, when one of the jurors became desperately ill and the defense refused to permit eleven jurors to continue the deliberation.

To the best of our knowledge Koch left these shores about Thanksgiving time, 1948 and has not returned. It is our information that he is now residing in South America.

Subsequent to the departure of Koch the Christian Medical Research League was incorporated and licensed to manufacture and distribute the Koch products. The first interstate shipment by this organization was made on December 7, 1948. The League is composed of a board of trustees, all of whom are preachers, or at least so term themselves, of various denominations and cults. There are a number of "chemists" who make the product after having been taught the process by Koch in Sao Paulo, Brazil. Although we have no definite figures, we estimate their gross income is better than $250,000 per year.

Observation of the use of the Koch remedies is continuing, looking toward further litigation if the facts so warrant.

Hoxsey Remedies

Harry M. Hoxsey is a native of the state of Illinois. His formal education terminated at the eighth grade, although he makes claim to correspondence courses, among which is forensic medicine. He also claims a high school diploma in 1917 from a correspondence school. Between 1917 and 1923 he worked in coal mines and sold insurance.

About 1924 he began to promote his cancer treatment, which he at one time said was developed by his father and at another time said was discovered by his grandfather. In one Federal court Hoxsey testified that his father had a small farm in Illinois and that he was a doctor of veterinary medicine and had a number of other degrees. Hoxsey says he presumes his father was a medical doctor because he treated human patients.

Prior to arriving in Dallas, Texas, Hoxsey peddled his treatments in various states. He has been convicted three times in the state of Illinois for practicing without a license and is permanently enjoined from practicing without a license in the state of Iowa. He was arrested while practicing in Detroit. In 1930 he was associated with the notorious Norman Baker of Muscatine, Iowa in the operation of a cancer clinic.

Hoxsey first appeared in Dallas, Texas early in 1936, where he opened a cancer clinic. The "clinic" was housed in a small one-story building with little or no equipment. Hoxsey, apparently profiting by past experiences, hired an elderly physician as the "front" for this setup so that he could not be charged with practicing medicine at this time. It is worthy of note, however, that not too much time elapsed before he was in difficulty over practicing. He was again convicted for practicing without a license, but the conviction was later reversed. The business prospered, and he later moved to much larger and more elaborate quarters which became known as the Hoxsey Cancer Clinic.

The Hoxsey remedies are several, divided, according to Hoxsey, into external and internal treatments.

The external treatments are escharotics. They have an arsenical base and are used primarily for the treatment of epithelioma. These preparations in the past have been applied directly to the lesion. In recent years the escharotic powder has been mixed with a soluble base, which we understand to be K-Y jelly, and injected beneath the skin.

The internal treatments are essentially 2, either of which may be varied, according to Hoxsey, to suit the type and location of the malignant lesion. These 2 preparations are referred to as the "black and red tonics"! Associated with the tonics is the supportive treatment consisting of iron, methylene blue, vitamins and laxatives. Also, as a part of the treatment, is advice concerning diet.

The black tonic in the past was composed of cascara sagrada, potassium iodide, extracts of buckthorn, prickly ash, red clover blossom, alfalfa, sugar, and water. Recently the formula has been changed, substituting cascara amarga for sagrada, and adding stellengia and Berberis roots.

The red tonic is composed of elixir of lactated pepsin as the vehicle, and varied amounts of potassium iodide. The dose of each of these remedies is 1 teaspoonful 4 times daily.

A brief description of the Hoxsey Clinic and its method of operation should be in order. The clinic is housed in a large stucco, residential-type building in a residential section of Dallas, Texas. Extending from the rear is a long addition, which houses the treatment rooms, laboratory, X-ray and drug rooms. The drug room is an interesting place to view. There are shelves and bins lining the room somewhat in the manner of the old-fashioned grocery store. Instead of the bins containing dried beans, apricots and prunes, the "supportive treatment" is stored there prior to dispensing to the patient. There are also offices located on the second floor of the building.

The staff of the clinic is composed of several osteopathic physicians, none of whom is recognized by the American Osteopathic Association. One man is "Director of Internal Treatment." Another is "Director of External Treatment." Another is "Chief of Staff." There are a business manager, a chief of laboratories, and X-ray technicians. There are a number of women in evidence wearing nurses' uniforms, but so far as we know there has been but 1 graduate nurse employed in the clinic. In recent years Hoxsey has acquired the degree of Doctor of Naturopathy, which he has said is an honorary degree, and is licensed by the state of Texas to practice this strange healing art.

As a patient enters the clinic he is greeted by a receptionist, who takes his name, address and diagnosis. He then passes on to a woman in nurse's uniform who takes his history on a printed card form and who makes particular inquiry as to previous biopsies, where performed, and by whom. The patient next goes on to the laboratories where routine urine and blood tests are run, including sedimentation rate, which is considered to be a strong diagnostic finding. Next, a group of flat plates is taken of the pelvis and chest. While claim is made that contrast media are used in radiography, no such plates were exhibited during the two visits I made to the clinic. A large number of flat plates were exhibited which were excellent X-rays of belt buckles, pins, zippers, and snaps of various types. The patient has now progressed to the ultimate moment of his diagnosis at the hands of one of the "specialists." After a very cursory examination, the diagnosis is made and treatment and prognosis are set forth. The patient now goes to the business office to make arrangements for payment of $400 plus laboratory and X-ray fees. Once satisfactory financial arrangements are made the patient is given a large brown grocery sack containing his "tonic" and the supportive treatment, and is on his way with a lighter pocketbook and spirit in keeping, since his cure has been practically assured. As one former "Medical Director" said, "If they didn't have cancer when they arrived they sure had it when they left."

It is not possible to make an accurate estimate of the number of patients visiting the clinic each day. An estimate based upon statements by Hoxsey, and our own observation, leads to the conclusion that 15 to 20 new patients are registered at the clinic each day of a 6-day week. In addition to the new patients there are approximately an equal number of old patients for check-up. Dr. Joseph Durkee, former "Medical Director," testified that he personally examined 35 to 50 patients per day. Recognizing the flat fee to be $400, and allowing for the occasional charity case, those who pay on the installment plan and fail to complete payment for one reason or another, it is not difficult to see that the gross income is well over a million dollars per year.

After an investigation lasting approximately 3 years the Government instituted injunction proceedings against Hoxsey, his clinic and others, to restrain them from shipping the misbranded drugs for internal treatment in interstate commerce. The trial started in the middle of December, 1950. The Government presented as witnesses a number of Hoxsey's patients and approximately 50 physicians from all sections of the country. Some physicians were recognized experts in the field of malignant disease, and some were physicians who had taken care of Hoxsey patients. Three categories of patients, or their families, testified in the trial: first, those who had never had cancer but had been treated and cured; second, those who had proven cancer and had been cured prior to visiting the clinic; third, those who had cancer, took the treatment and died. The Government case was restricted to those patients treated only for internal disease.

Hoxsey's case consisted of testimony by patients concerning their cure and was limited almost entirely to patients in whom the external type of treatment had been used.

The court returned a verdict unfavorable to the Government. This verdict was appealed to the appropriate higher court, which reversed the lower court. Hoxsey then appealed to the U.S. Supreme Court, which refused to review the opinion of the Circuit Court. On October 26, 1953 the District Judge signed the injunction prohibiting Hoxsey from shipping his drugs in interstate commerce. Since the original action was instituted in Dallas, Texas, there have been no less than 20 legal actions involved in this case, and it continues to date.

In the accumulation of evidence suitable for presentation in court many factors must be considered. These factors all operate in the development of a case involving a product of domestic origin. There must be accurate and extensive analyses of the drug involved. There must be conclusive evidence of interstate shipment, and it is from these shipments that the analyses must be made. There must be adequate studies to support the Government's contention that the product is worthless or harmful, whichever the case may be. This involves research projects in laboratory and clinic. In preparation for the Hoxsey trial a laboratory study was set up in a prominent research institution involving some 700 mice. In addition, patients and their physicians must be interviewed, hospital records reviewed, and death certificates obtained when necessary. In preparation for the Hoxsey trial over 100 Hoxsey patients and their physicians were interviewed. To accomplish this monumental task 1 inspector drove over 17,000 miles and, since we considered it not advisable to have a single inspector visit these patients, the time of 2 inspectors was required for each interview. In a general way the same process was followed in the development of evidence for use in the 2 Koch trials. Then followed the necessity of bringing all of these witnesses to the place of the trial, with all of the attendant expense. The outcome then rests upon the decision of a judge or a jury.

The purpose of this discussion has been to demonstrate some of the problems confronting the Food and Drug Administration. In addition we wish to demonstrate how some of these problems may be handled, and particularly the ease and lack of expense involved in the handling of imported preparations as contrasted with the tremendous expense and expenditure of time and energy in handling domestic products of the same general type. In spite of what at times may seem to be insurmountable difficulties, we are continuing our activities against this class of fraudulent or harmful products.

President's Page

MORE ABOUT MEDICAL MEETINGS

There appears to be an increasing concern by medical societies over the country about poor attendance at regular scientific meetings—this in spite of the curtailment in their number. It seems that few programs appeal to a cross-section of the medical profession. On the other hand, programs which are designed for specialists attract a larger percentage of physicians. This is especially true of small medical organizations where the social factors play an important part.

In larger medical centers, particularly where postgraduate programs are numerous, duplication of subject matter is common-place. Even where there is no duplication there is frequently a conflict in dates, to the discomfiture of the organizations and, not infrequently, a loss to the profession generally. Hospital conferences, too, are involved in the present-day complexity of medical instruction.

What is the solution? To meet the situation which exists in the District, where conditions in this respect are undoubtedly as bad as anywhere, a proposal was recently made that a committee be appointed of representatives of the major medical organizations and institutions who would study this matter and, to the extent possible, integrate the programs as to subject matter submitted and the dates on which they are scheduled. This committee might well plan programs well into the future. The medical organizations would then be assured of a reasonable attendance at their meetings.

Your suggestions would be welcomed by the Society. I would be happy to have you forward them to me.

Preston A. McLendon

Editorials

CENSUS OF TUBERCULOSIS PATIENTS

Today there are more known cases of active tuberculosis in our community than ever before. This we know because there are now 8,700 tuberculosis patients on the Tuberculosis Patients Register, with various stages of the disease. In addition there are 3,000 cases on the administratively inactive register. In the fiscal year ending June 30, 1954, 1,622 new cases were reported, of which 1,106 were newly reported active or questionably active, and an additional 74 were reactivated.

Case supervision to maintain current information on the activity and status of these patients has always been a tremendous task. With the increased number of patients involved it is more difficult than ever. It is a challenge which the Department of Public Health accepts as its responsibility and one which will be met with increased effort. The hard core of the control program in tuberculosis is the Patients Register. It is based upon the patient report, required by law, and it must be maintained by the official control agency. By necessity the Patients Register needs to be brought up-to-date and kept current. This can only be accomplished by the strenuous and complete coöperation of the physicians of the District.

A census of all known tuberculosis patients is currently being undertaken by the Department. To be successful it is essential that complete and current information on those who have tuberculosis be received. A census form, one for each patient on the Register, has been sent to the physician or hospital last reporting the case. We are confident that those responsible for medical supervision of tuberculosis patients will promptly complete the information and return it to the Department. In addition to making current the information on previously reported cases, it will give physicians an opportunity to bring up-to-date their reporting for those patients who have not previously been reported.

The shifting impacts of the present problems make it important that we all be in a position to recognize changes as they occur to properly assess and evaluate our efforts. The data to do this adequately are not available at the present time. It is for this purpose primarily that we are undertaking the census study.

The census is but the beginning of an intensified program of control involving all Health Department activities. Case-finding efforts have been significantly increased. The Department has taken the lead among the Washington hospitals with a program for the routine X-ray of *all* hospital admissions; all inmates of the Department of Correction's facilities are now completely covered by X-ray screening, definitive diagnosing, and the assurance of isolation and treatment; and delinquency on the part of tuberculosis patients is being controlled through appropriate application of enforced isolation. The problem of irregular discharges, which has for long years been unsolved, gives promise of solution.

The private physician plays a vital role in the control of tuberculosis and we are intensely interested in emphasizing and increasing that role in the District of Columbia.

We are asking physicians not only to cooperate in the present census but also to contribute, as only they can, in a continuing drive

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

to report and control tuberculosis. We know that the physicians will join with us to help eradicate tuberculosis in this community. Together, we can deal tuberculosis a knock-out blow!

Daniel L. Seckinger, M.D., Dr.P.H.
Director of Public Health, District of Columbia Department of Public Health

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PERSONAL SERVICES TO OUR MEMBERS*

The increased activity of the Medical Society of the District of Columbia is a necessary function of its position as a state and county society, and as a society in the Capital of the Nation. It has many privileges, and with these go many responsibilities. Its members, its committees, and its sections are gaining increasing importance and notice, both upon the local and the national scenes. The influence of our physicians is felt at great distances, particularly in their organized relationships.

We have had complaints from physicians about things the Society does not do. The Board submits to you that its faithful and loyal staff is often pushed to the breaking point by present demands, and additional staff must be provided. This pressure reflects in the amount of time the Secretary is forced to spend upon details which could be handled by other staff members if there were enough of them.

But aside from Society activity, I should like to enumerate, from data I have tabulated, some of the personal services rendered to physicians by our Society's staff:

1. Personal advice requested by physicians:

(a) Ethical questions regarding advertising, relationships with other physicians, discharge of patients, privileged information, etc.

(b) Medico-legal matters (supplying information, sometimes with the aid of legal counsel); privileged communications; authority for post mortems, sterilization, etc.; responsibility of spouses for each other's medical bills; laws in regard to medical bills; and medical care of minors.

(c) Medico-economic matters, such as proper handling of patients' records; keeping financial records; tax laws, especially those relating to tax deductions; costs incident to employment of personnel; and office rental.

(d) Personal problems of all sorts. Under this latter heading our Secretary has been in the last 16 years Father Confessor to many Washington physicians.

2. Furnishing information on licensure requirements for the District of Columbia, Maryland and Virginia.

3. Providing members with the names of insurance brokers handling insurance of all kinds.

4. Assisting members seeking office locations. This same service is rendered to members who have office space to share and who seek help from the Society in locating an associate.

5. Service to all members who wish to buy or sell office furniture or medical equipment. In many instances, the widow of a former member will seek assistance in the disposition of these items.

6. Employment service for physicians seeking office help (secretaries, technicians, nurses, etc.). This involves interviewing job applicants and placing those who can best fill the specific needs of requesting physicians.

7. Providing information on our Health and Accident Insurance Group Plan and making arrangements for enrollment of Active members.

8. Enrolling members in the Society's group of Group Hospitalization, Inc., or arranging transfer from another group to our own. Mailing statements and collecting annual premiums from

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* Editor's note: This is a portion of a prepared speech made by Dr. Herbert P. Ramsey before a special meeting of the Medical Society of the District of Columbia, November 10, 1954, in support of increasing the Society's membership dues. It was suggested by some members present that this list of personal services rendered Society members by the office staff be published in the Medical Annals.

subscribers to Group Hospitalization, Inc. Notification of group enrollment periods (February and August) sent to all non-group subscribers to serve as reminders if they wish to join or transfer into the Doctors Group.

9. Mailing Workmen's Compensation Fee Schedules to members. In some cases requests are received to clarify the charge to be made for a certain case.

10. Assisting members in the preparation of Classified Advertising for the MEDICAL ANNALS (personal or professional advertisements).

11. Selling AMA auto emblems to members; D. C. parking permits are also distributed and recorded.

12. Arranging telephone needs for members even though they are not MEDICAL BUREAU subscribers (i.e., intercepting service during vacations, running special lines to offices or homes during non-availability periods).

13. Providing information to members and the public regarding places and dates of local or out-of-town medical meetings.

14. Furnishing biographical information to members and the public on local physicians and out-of-town physicians. (Reference: AMA Directory and Specialist Directory.)

15. Addressograph service for members wishing to mail out notices of change of address, etc. (Members pay addressograph operator $5 for complete run, which is done after office hours.)

The above is only a partial list of personal services performed for members.

H. P. R.

HEART FUND CAMPAIGN

The Washington Heart Association is this month conducting its February Heart Fund Campaign, which yearly provides for continuing support of programs of research, education, and community services. This year the Campaign features a special Heart Sunday, February 20, drive, when almost 10,000 volunteers will visit practically every home in the city to collect donations from their neighbors.

Less than a decade has seen the growth of the Association as a voluntary health agency in which the medical profession has accepted new responsibilities for community leadership. Although the foundations for many current programs of the Washington Heart Association were laid years ago by the physicians of this city, securing larger sums of money to support these programs is a recent development.

Currently, the Washington Heart Association is providing support with these funds for a cardiac camp for children; for rehabilitation services; for a work evaluation unit; for lay and professional education, including special training in the cardiovascular diseases for young physicians; and for research conducted by local physicians. And, as a result of this and other support, the cardiovascular research community here has matured greatly in recent years. Dr. John M. Evans, Research Committee Chairman of the Washington Heart Association, states that Washington has developed so rapidly in this cardiovascular area that there is a growing need for more funds to help support the accelerating heart research programs at the several medical centers.

The current programs include, for example, pilot projects and studies of the relationship of cold exposure and fat metabolism; the hemodynamic and electrocardiographic alterations produced by large doses of prostigmine (with the objective of developing a drug for preventing onset of ventricular fibrillation during hypothermia); experimental pericarditis; hypothermia; toxemias of pregnancy and heart disease; relationships of blood viscosity and aging to thrombosis; and methods for diagnosis of renal disease by means of renal biopsy.

Whereas these represent merely a segment of a continuing and expanding research program, they serve to illustrate the kind of work that is partially dependent upon support from the Washington Heart Association.

Professional organization and sound technics in fund-raising have contributed much to sustaining and increasing the funds for support of these efforts. Yet maintaining a level of support at all consistent with the magnitude of the heart disease problem will depend more and more upon a widespread understanding of what we are seeking to accomplish—in other words, the WHY of giving.

Physicians are well aware of the importance of cardiovascular diseases as causes of death and morbidity, not only in the later decades of life but also among those in the prime of life. In the "military" ages, from 20 to 39, one sixth of all deaths are due to heart diseases, and in the 20 years of life from 35 to 54, one third of the deaths. Means must be found through research to ameliorate this waste. But how is this to be supported?

In addressing the First National Conference on Cardiovascular Diseases in 1950, Dr. H. M. Marvin, who was then President of the American Heart Association, noted that "people with small, moderate, or large incomes are so variously and heavily taxed today that most of them are not only willing but even eager to have the government pay for all possible activities out of those taxes." Though some may wish to "let the government do it," we recognize that the problem is great enough so that all available resources must be utilized to achieve even partial success. People must be recruited and encouraged with training and facilities to pursue research. Often this is most successfully done by local organizations. Their resources may be limited, but their mobility and familiarity with local needs make them valuable. The Washington Heart Association has sponsored, particularly, new research projects which might develop and commend themselves for more generous support.

The medical profession in the city of Washington is aware of these facts, and, in a continuum, has many opportunities to contribute to the general community consciousness of the worthwhile work of the Washington Heart Association. This contribution by the profession will be as valuable in support of the cardiovascular effort as the financial gifts that the Heart Association seeks and receives from its friends in the medical profession.

JOHN A. REISINGER, M.D.

THE 1955 DAVIDSON LECTURE COMPETITION

The excellent article on "The Physiology of Arteriovenous Fistulas," which appeared as the first article in the January, 1955 issue of the MEDICAL ANNALS, was the 1953 Davidson Lecture. It was delivered by the author, Dr. George E. Schreiner, at the FIRST INTERSTATE SCIENTIFIC ASSEMBLY last November. This paper was of the same high calibre which has distinguished each Davidson Lecture since its inception in 1929. In 1936 the selection of the Lecturer was placed on a competitive basis in order to stimulate research and performance of a high order.

The lectureship commemorates the services which Dr. Edward Young Davidson rendered to the Medical Society of the District of Columbia by making possible the erection of the present "home" of the Society. It carries an honorarium and a certificate of award.

The rules governing the choice of the Lecturer are as follows:

> "The selection of the Davidson Lecturer shall be on the basis of competition, the winning essay to be selected by a subcommittee consisting of five (5) members of the Executive Board appointed by the Chairman. No member who desires to compete can serve on the committee.
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> "The competition shall be thrown open to physicians or other scientists working in the District of Columbia.
>
> "The essays to be submitted must bear no indication of the author's identity, being signed by a *nom de plume.*

The identification of the author must be in a sealed envelope bearing on its surface the same *nom de plume.* No essay may be submitted that has been published.

"Essays should be submitted to the Secretary of the Medical Society of the District of Columbia not later than July 1 of odd numbered years.

"In case no essay is found worthy of an award, the subcommittee shall declare no award; the lecturer then to be selected by the full Executive Board."

Competition is not restricted to physicians. The rules specify that manuscripts from scientists working in allied fields in the District of Columbia shall be acceptable to the judges. Manuscripts submitted for the Thirteenth Davidson Lecture should be left in the Medical Society's offices at 1718 M Street, N.W., between this announcement date and July 1, 1955.

In and Out of Focus

BY THE OBSERVER

Health Fair One of the feature attractions of the Society's ANNUAL SCIENTIFIC ASSEMBLY has been the Public Health Exhibit. Because of location and space limitations the Exhibit has been modest to a point where its value from the standpoint of the public has been seriously questioned.

This view was first expressed by one of Washington's leading businessmen who proposed that a public health exhibit on a much larger scale be sponsored in connection with the Home Show, or a similar large-scale exhibition. In his view this would be much more effective and attract many more people than any exhibit presented in connection with a medical meeting.

This suggestion has lain dormant, largely because the Public Health Exhibit was not included in the FIRST INTERSTATE SCIENTIFIC ASSEMBLY. Recently, for reasons which will become apparent, interest in a more ambitious public health exhibit has been revived.

Last December, during the Interim Session of the American Medical Association, at Miami, the Dade County and the Florida State Medical Associations, with the AMA, jointly sponsored what was called the Health Fair. The Fair was on display daily from December 2 to 5, in the Miami Auditorium, a building ideally suited for the purpose. Your Observer visited the Fair and was deeply impressed not only by its size, but by its quality. The exhibits were not haphazard affairs such as are often thrown together by health organizations which merely want to show something. They were uniformly attractive and informative, revealing the intelligent planning that had gone into them. Miamians thronged the Fair, showing their keen interest by numerous questions directed to those in charge of the individual displays and by the enthusiasm with which they manipulated the "gadgets" that told a health story.

Your Observer came away much enthused over the possibility of putting on an exhibit of equal size and quality in Washington. Shortly after his return, he received a call from a member of the Health Committee of the Washington Board of Trade who gave it as his opinion that something should be done along this line in the near future. The Society's Executive Board has approved a more ambitious public health exhibit in principle, and a conference has been scheduled in which representatives of the District Medical Society and the Washington Board of Trade will participate. Recommendations decided upon will be submitted to the Board and, if approved, more definite developments can be anticipated.

Many months ago, in this column, the hope was expressed that Washington would some day have an institution comparable to the Cleveland Health Museum. It is reasonable to believe that a Health Fair such as is now being proposed may be a prelude to the establishment of a Washington Health Museum.

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Bad Press?

"There must be something wrong with the medical profession's press relations," observed a Washington physician not long ago; "doctors get plenty of publicity, but it is nearly all bad." He then elaborated upon what, in his mind, could be done to improve the situation. Get writers to write the type of material which people should read about the medical profession, get reporters to agree that they would submit their material for review, and so on.

He was reminded as gently as possible that this was not the sort of thing that editors of either magazines or newspapers would welcome, and, anyway, the situation was perhaps not as bad as he seemed to think. For example, had he seen such and such an article which appeared in a local newspaper a few days before? No, he hadn't. Well, what about the story in this morning's paper? He hadn't seen that either. Why was it that the so-called "good stories" are more frequently missed than the bad ones? No answer.

Mr. Robert M. Cunningham, Jr., Editor of *The Modern Hospital*, has made some interesting observations on this quirk of human nature. In an editorial entitled, "Hospitals and the Press" in the September, 1954, issue of his publication, he writes:

> "The truth of the matter is that doctors and hospitals get a much better press than most of us believe. Of more than 300 magazine articles listed in the "Reader's Guide to Periodical Literature" on the subjects of hospitals, nursing, medical service and medical practice for the period March 1951 to March 1953, for example, not more than a dozen or so appeared to have any critical or unfavorable aspects whatsoever, and I suspect that if a similar count could be made of all articles dealing with these subjects in the nation's newspapers, a similar proportion would be revealed."

What is a good article? Mr. Cunningham says that it is not necessarily one that praises doctors and hospitals, but may in fact be critical. In his opinion, an article which, in its criticism of doctors and hospitals, is fair and reasonable is a good article. On the other hand, if it is too laudatory, it may be misleading and, if so, it is a bad article. He urges need for "... a sense of proportion and [to] remember that, no matter how annoying and unjust and damaging it seems, the hospital and medical worlds are not going to collapse because somebody has published an unfavorable article about them. As a matter of fact, I think we are inclined to exaggerate the importance of such articles out of their proper proportion."

It is human nature, Mr. Cunningham points out, "... that we are all naturally sensitive about articles dealing with our own activities, and we are inclined to exaggerate the importance and extent of criticism. As a matter of fact, I think the public is impressed by critical articles about doctors and hospitals only to the extent that such articles confirm actual experience."

These observations, in your Observer's opinion, make sense. There is nothing as perishable as today's news unless facts therein, as Mr. Cunningham says, confirm actual experience, and usually, your Observer might add, among a large number of people. That is as true of so-called medical articles as of any other type of current news.

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Footnotes in Medical History—II

Among the younger Washington physicians of the late 1930's few were as popular as the late Dr. E. Kirby-Smith. Affectionately known as "Kirby," he was the vigorous leader of the "young Turks." Possessed of a colorful, warm personality, he was disarmingly persuasive when pleading a cause. Unfortunately, he was stricken with a permanently disabling disease on the threshold of a promising career.

Your Observer met Kirby only once while he was in full vigor. It occurred in the library of the Medical Society's building on a Sunday morning in late November, 1937. A committee designated by the Society to interview candidates for executive secretary was holding a meeting. Then situated in Milwaukee, Wisconsin, your Observer was the prospect being interviewed.

He had visited Washington on only two previous occasions, and then only for a day or two, so members of the committee, including Kirby, were complete strangers to him. He responded as best he could to questions about his past, organization work in general, and the medical situation in Washington in particular. No mention was made of the difficulties which then threatened the existence of the District Medical Society. In fact, some of those present gave the contrary impression, one saying, in effect, that the local profession was a most harmonious group.

The meeting came to a close about noon. All departed except Kirby, who insisted that your Observer have dinner at his home. This invitation was more welcome than Kirby realized, since there was a whole afternoon to be filled in before the train departed for the West.

Mrs. Smith greeted her unexpected guest cordially and soon made him feel very much at home. The conversation naturally veered to the object of the meeting just concluded, and your Observer soon learned of the differences which existed in the Society. This was hardly news to him, however, as reports of dissension in the Society had been widely circulated in the medical profession.

The highly enlightening conversation continued during dinner. Between mouthfuls of food, Kirby spoke feelingly about the need for unity in the local profession and his hopes for the future. A telephone at his elbow on the dining-room table disrupted the discussion frequently. Your Observer remarked on the interruptions, that they were not conducive to relaxation. But Kirby was bursting with ideas and ignored the remark.

It isn't often one meets a person for the first time and feels that he has always known him. That was your Observer's feeling about Kirby. Somehow he felt close to him without knowing why.

Before train time, Kirby produced a copy of a medical prepayment plan he and his associates had developed. He wanted your Observer to take it with him, requesting that he give his impressions. During the months that followed there was an exchange of letters. As there was no certainty until the following spring that your Observer would come to Washington, letters became more infrequent and finally stopped altogether.

Kirby's story at this point has been filled in by his close personal friend, Dr. Howard P. Parker, who relates that Kirby carried his fight for the proposed plan and other progressive measures to the Society. The plan was considered by a committee but the records do not show that any action was taken. However, Kirby kept up the pressure for his ideas until illness intervened.

Subsequently, a plan was adopted, but Kirby was to have no part in it. As his physical condition did not improve, he and his family left for Tennessee, where he lived quietly until his death in 1945.

Upon his arrival in Washington in June (1938) your Observer was most anxious to see Kirby again. He was shocked to learn that Kirby had been seriously ill and was at that time confined to his home. Upon the occasion of his visit, Kirby protested in picturesque language his incapacity, how much needed to be done, and how much he would like to have a part in future developments. "Why," he asked bitterly, "should I be denied a part in the 'show'?"

While the "show" proceeded without him, his vivid personality deeply affected the thinking of many doctors who later came to a decision that he would have been the first to applaud.

The plan which he envisioned was, with modifications, much like the Society-approved Medical Service of the District of Columbia.

As surely as if it were contained in some written record of the medical activities of that day, Kirby wrote a footnote in medical history that will endure in the hearts of all who knew him. He caught a vision of the future and exerted all his powers toward its realization.

It is hoped that these few lines will do a little to perpetuate the memory of a gallant and courageous spirit.

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Is This the Key? The white glare of front-page publicity may be the breath of life to some, but many doctors are becoming weary of being the center of public attention. They are fed up with seeing medical controversies in the headlines; reading unfriendly criticism of themselves and their professional activities; and listening to unsought advice of so-called experts. They fervently hope that someone else will soon occupy the limelight.

Weariness under these circumstances is understandable, but problems as fundamental as those involving the public health cannot be wished away. They must be met with understanding, sympathy and courage if the medical profession is to enlist public support for its point of view.

Important as it is for the medical profession to tell its side of the story effectively, it is folly for physicians to disregard the views of those who disagree with them. For nuggets of truth are often to be found in biased and sometimes factually incorrect statements.

An example of this is an article which appears in the November, 1954, *Atlantic Monthly*, by Pearl S. Buck, entitled, "The Touch of Life."* Miss Buck decries what she calls "the rise of power of the professional over our lives." She recalls that the country doctor in the rural regions, to which she moved twenty years ago, was trusted "far more than any physician is today."

While appreciating the progress of medical science, most patients do not have the confidence in doctors they once had. She ascribes this, in part, to the increase in specialism; spiraling medical costs, citing the fact that the country doctor once made calls for two dollars and that the cost for such calls now is three or four times this figure; and the doctors' demands that sick persons come to their offices even if this means a journey of many miles.

Health insurance does help, she observes, but it does nothing for the person with a chronic illness, and these are the persons who need help. For this reason, health insurance has not built up much public confidence in doctors.

While she has no objection to doctors living well, "the high average income and living standards" of modern physicians as compared with "the simplicity and devotion of the old country doctor" do not instill trust, she says.

Despite these things, Miss Buck insists that she is against socialized medicine:

"I shall always prefer our system of personal and private doctors, and yet I feel concern because though I can pay my doctors' bills, thanks to chance, I know that some of my neighbors often put off getting medical attention because they are too poor to pay and too proud to take charity, and medical charity is no sweeter than any other. Few doctors can or do treat a charity patient as they treat one who pays well."

There is no difficulty in finding flaws in Miss Buck's views. She passes over too lightly the importance of the quality of medical service. Her comments on the economics of medicine, as they relate to both patients and physicians, are entirely too casual, inaccurate or, at best, only partially accurate. This is surprising in a writer of Miss Buck's stature. Nevertheless, in the following paragraphs, she does put her finger on a matter worthy of serious thought by every doctor:

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"I deplore the increasing loss of trust in the idealism of the professional, especially in the medical field. The lay person is so helpless when he falls ill, so pathetic in his need of confidence. His wretched body is all that he possesses, and he clings to it in the face of death and extinction. I understand, of course, that the physician cannot allow himself to be torn daily by emotions or he could not do his work.

"Yet I believe the professional is mistaken when he declares that he must be detached, must be removed from personal interest, must be unsharing and remote, in order that he not be destroyed. I think he destroys himself by his very emotional detachment. If I am to commit my body to a man or woman to cut up while I am unconscious, be sure that I shall search not only for the skillful surgeon, but for the surgeon who is first a feeling human being. As a lay person, I do not want a surgeon, however expert, who never comes back to see how I am, who turns me over to another automaton house doctor, who in turn leaves me with an automaton nurse.

"I once had my life saved, many years ago, by a surgeon who not only performed a skillful operation, but who, coming back often to see for himself how I was, delivered me out of the hands of a nurse under whose oppression I would surely have died, so cruel was she when left alone with me. I was at that desperate point between life and death when the slightest discouragement could and very nearly did push me over the brink. The surgeon understood instantly that this nurse had the touch of death and not of life.

"The touch of life! That is what I mean. Some professionals have it and some do not have it; but when the lay person feels the touch of life in a professional, he willingly entrusts himself to the superior knowledge, the perfected skill. And what is this touch of life, this life-giving force, except the fruit of rich emotional understanding, the fruit of experience richly shared? Those professionals who do not have the emotional understanding of those whom they are supposed to serve do hasten the death of many."

Thoughtful physicians have, on many occasions, expressed the thoughts voiced by Miss Buck. They have been gravely concerned lest the art be submerged in the science of medicine. This is indeed a serious matter for, if doctors are to hold the confidence and respect of the people, they must concern themselves as much with patients as human beings as with the diagnosis and treatment of the diseases that afflict them.

It's in Their Blood

This title has no scientific connotation. It relates to an infection which is caused by what might be described as "medical organization virus." It is not an uncommon affliction and, if severe enough, few of its victims recover. In other words, it "gets into their blood" and they seldom have the will or even the desire to "get well." If they do, they are never quite the same.

An illustration of this is the AMA's House of Delegates. Those who have attended House sessions for a long time have observed that a number of delegates come back year after year, some of them for as long as 20 or even 30 or more years. Despite the sacrifices which they must make in time and money to attend House sessions, they never seem to weary. In fact, as the years roll by, most of them seem to find attendance an increasingly stimulating experience.

The atmosphere, upon arrival of the delegates at a convention city, is that of a fraternal gathering. There are hand-shakings, friendly greetings, and the retelling of threadbare stories. However, social amenities soon give way to the serious business at hand. In the next two or three days a number will prepare and deliver reports, serve on reference committees, or participate in floor discussions. Infrequently, in committee meetings or on the floor, there will be hot debate. But it is seldom vituperative or personal. For this is a friendly and, in a way, an exclusive "club." When business has been disposed of, there will still be time for friendly social gatherings, cocktail parties, and perhaps a visit to a night club.

The fascination which these activities hold for organization-minded physicians can readily be appreciated. Here their activities take on special importance in the eyes of their fellow-physicians, their opinions are sought by top-drawer medical leaders, and their views carry considerably more weight than under ordinary circumstances. This aura of distinction, it appears, compensates for the sacrifices they are called upon to make.

An analogous situation is to be found at all levels of medical organization—county, state, or national. Despite disillusionments and disappointments inevitable in organization work, the enthusiasm of "virus victims" is seldom dimmed. There are emotional peaks and valleys but one is never a nonentity. There are also opportunities for satisfying the creative urge, and the satisfactions inherent in accomplishment.

There may be other and equally valid opinions on this subject. Whatever they may be, one thing is certain: The medical profession is fortunate in having men sufficiently attracted by organization work to give generously of their time and money. Not all, of course, measure up to their opportunities, nor are they all unselfish. But most of them sincerely endeavor to serve the best interests of the people and their profession. Without "virus victims," organized medicine would be in a sad state indeed.

T. W.

THE RED CROSS BLOOD RECIPROCITY SYSTEM

RAYMOND O. DART, M.D.

Medical Director—Administrator, Washington Regional Blood Center

On January 1, 1955 the American Red Cross activated a unified system of blood and blood credit exchange among the 45 regional collecting and processing centers embraced in its Nation-wide program. Officially designated "Red Cross Blood Reciprocity," the system is actually the unification and standardization of numerous informal arrangements which have existed among the various centers since the beginning of the Red Cross Blood Program in 1948.

A Central Exchange in National Headquarters, Washington, D. C. has been added to maintain the records, periodically strike balances, issue monthly statements, and direct settlements between debtor and creditor centers.

Planning for Red Cross blood reciprocity was started in the spring of 1954. A representative committee of Directors and Administrators from selected Regional Centers and Area Headquarters in different sections of the United States was chosen to adjust the difficulties arising from differences in policies and eligibility rules in the various Regions. The plan was completed and submitted to all centers for final approval in November 1954. The system enables one Center to act for any other Center contingent upon the availability of blood and hospital participation in the Red Cross service. Applicable principally to the present 45 Red Cross Regional Blood Centers, the plan can be extended to non-Red Cross facilities upon consummation of formal agreements. Two such arrangements have already been made.

The system provides both for supplying and accepting blood for another Regional Center. Blood is furnished and blood donations are accepted for the purpose of extending this service to patients who may be hospitalized away from their home regions. Reciprocity transactions are initiated after the patient's eligibility has been ascertained from his home Center.

Fifty-one hospitals in the Washington Regional Blood Program receive their total supply through the Red Cross Blood Distribution Center in Washington, D. C. The three remaining civilian hospitals in the territory covered by the Program, though not fully participating, coöperate by accepting replacement on a pint for pint basis for those patients who are eligible to receive blood through the Red Cross. Heretofore in this region it has been the policy to supply all fully participating hospitals with their total blood requirements without regard for the identity of the patient or the quantity of blood he received. The policy of supplying the total quantity requisitioned by all participating hospitals will not be changed. The advent of reciprocity, however, makes it necessary for the Center to obtain information concerning the name and address of the patient and the donor participating group affiliation if known.

Acting with the advice and assistance of the Committee on Blood for the District of Columbia Medical Society, the Center has made every effort to simplify and minimize the administrative and clerical procedures required of the participating hospitals in providing the information necessary to make Red Cross Reciprocity effective in this region.

It is recognized that, as with any other new project of such magnitude as the new Red Cross Reciprocity, some unforeseen deficiencies and obstacles will be encountered during the initial operational phases. These will be corrected with appropriate changes in the procedures as they develop. After a suitable period for testing and improving the operational details, the adopted *modus operandi* should be adequate for maintaining reciprocal relations with other agencies that make blood available for use in hospitals.

GHI'S PREFERRED HOSPITAL SERVICE CONTRACT

A new Hospital Service Contract that will offer up to 180 full benefit days of hospital care during each confinement was announced in January by Joseph H. Himes, President of Group Hospitalization, Inc., Washington's Blue Cross Plan.

Subscribers who enroll under the new Plan will receive a Preferred Hospital Service Contract. It will be available at a somewhat higher cost than Group Hospitalization's Standard Hospital Service Contract, under which nearly 600,000 persons in the Washington area are now covered.

Mr. Himes, one of the founders of Group Hospitalization, has served continuously as its President since it began operations in 1934. He said the Preferred Hospital Service Contract will make available much broader protection against the expense of prolonged hospitalization.

In addition to providing more days of care, the new contract offers greater benefits to patients who are admitted to non-participating hospitals. Allowances for private accommodations and maternity care are increased. More days of care will be provided for pulmonary tuberculosis and mental or nervous disorders. Congenital conditions will be covered after a 10-month waiting period, and coverage will be provided children after they attain the age of 14 days.

In announcing the new program, Mr. Himes said: "Group Hospitalization's Standard Hospital Service Contract under which nearly 600,000 persons in the Washington area are now enrolled, is excellent. However, hospital stays sometimes exceed the period of 21 full benefit days the Standard Contract provides, and may last for months. In such cases, with today's high costs, the payment of bills for prolonged hospital care is usually difficult. Big bills are hardest to pay and the Preferred Contract is designed to provide protection against such bills."

The Contract will be available on a group basis to subscribers who enroll through groups of 20 or more employees.

The benefits offered by the new Contract include the following services, without a dollar limit, when such services are rendered by the 20 major hospitals in the Washington area:

Semi-private rooms (accommodations for 2, 3 or 4 persons)
Meals, including special diets
General nursing service
All drugs and medicines listed in the official formularies
First urinalysis and complete blood count
Operating room and recovery room
Cystoscopic room
Oxygen and use of equipment for administering oxygen
Dressings
Plaster casts
Sterile tray service
Intravenous solutions and injections
Sera (except blood and blood plasma)
Analgesic care

The Service Benefits listed above are available at the following hospitals:

Casualty
Children's
Columbia
Doctors
Emergency
Episcopal
Freedmen's
Garfield
George Washington
Georgetown
Hahnemann
Providence
Sibley
Leland
Prince Georges
Suburban
Washington Sanitarium and Hospital
Alexandria (Va.)
Anderson Orthopedic (Va.)
Arlington (Va.)

If a subscriber to Group Hospitalization is admitted to any of approximately 6,000 Blue Cross hospitals throughout the United States and Canada, he will receive the benefits of that hospital's Blue Cross Plan. If he is admitted to one of the few non-Blue Cross hospitals, the Preferred Contract will provide: (1) an allowance of up to $12 a day toward the hospital's charge for room and board, and (2) 80 per cent of the hospital's charges for other services offered by the Contract.

Cost of the Preferred Individual Hospital Service Contract (unmarried persons only) is $2.08 a month. The Preferred Family Contract (husband and wife, or husband, wife and unmarried dependent children) is $5.72 a month.

Comparative data showing benefits in the Preferred Hospital Service Contract which differ from those in the Standard Hospital Service Contract are listed below:

Benefits	Standard Contract	Preferred Contract
1. Number of Days	21 full and 180 partial	180 full (no partial)
2. For Maternity Care (Group Family Contracts only)	$9 a day for up to 8 days for any one pregnancy	Up to $100 allowance for any one pregnancy
3. Private Room Allowance	$10 a day	$12 a day
4. For Congenital Conditions	Excluded	Covered after 10-month waiting period
5. For Tonsillectomies and Adenoidectomies	Limited to 1 day for children and 2 days for adults	Not limited
6. For Nervous and Mental Conditions and Pulmonary Tuberculosis	Limited to 10 days during any 12 months	Limited to 30 days during any 12 months
7. For Minor Dependents	Beginning at 90 days of age	Beginning at 14 days of age
8. In Non-participating Hospitals	Up to $10 a day for room and board—plus allowances for other covered services ranging from $11 for one-day stay to a total of $64 for 21-day stay	Up to $12 a day for room and board—plus 80% of charges for other covered services

THE DISTRICT OF COLUMBIA SOCIETY FOR CRIPPLED CHILDREN

The Annual Report of the Medical Director of the District of Columbia Society for Crippled Children indicates that 560 children were treated, 170 of whom were new cases. This is a definite increase over the number treated in previous years.

The ratio of white to colored children compared favorably with the predicted incidence, and an encouraging point is that there was a marked increase in the registration of children in the younger age group, indicating that these conditions are being diagnosed at an earlier period in the child's life, thus placing them in a position where they will show more favorable results with treatment.

The clinics were conducted without compensation by members of a Scientific Council, all of whom have the highest respect of their confreres; the Scientific Council also serves in an advisory capacity. There were 1,600 visits to the clinics. It is interesting to note that 80 per cent of the children studied suffered from manifestations of the syndrome of cerebral palsy.

In the nursery and kindergarten conducted by the Society, 98 children were enrolled; 8,733 speech, occupational and physical therapy sessions were conducted for these children and for others, who were treated on an outpatient basis by the respective ancillary departments. Psychologic testing and parent counseling were among the other services rendered.

The residence of the children is evenly distributed throughout the entire metropolitan area, and all of these children were referred by physicians or clinics in this area.

A unique feature of the report is the results of treatment. This shows that there was improvement. The results are factual but, as stated, "The above consists of facts and figures and in no way illustrates the challenge of accepting, in September, a child who can only lie flat on his back on a mat and the reward of seeing him walk down the aisle to receive his diploma at commencement several months later."

After reviewing the report one is convinced that the Society is conducting a program which is both comprehensive and of an extremely high calibre, and it is one of which the community should be proud. Besides this, it is economically, socially and professionally sound.

On the Lighter Side

Dr. Henry P. Laughlin, psychiatrist and world traveler, has returned recently from a tour of the world that would make the travels of Marco Polo seem like a trolley-car ride to Glen Echo.

The doctor left Washington, D. C. on December 4, 1954, on official Philippine Island government embassy business, and flew to San Francisco, California, on what turned out to be the first leg of a world tour.

From San Francisco he flew to Honolulu of the Hawaiian Islands, to Wake Island, to Guam, and finally to Manila of the Philippine Islands, where his official business ended; and then to Hong Kong, Bangkok, Calcutta, New Delhi, Karachi, Basra, Irak, Beirut, Damascus, Rome, Zurich, Paris, London, Portsmouth, Shannon, Gander, New York, and finally back to Washington, D. C.

In Manila, Dr. Karl Bowman, Past President of the American Psychiatric Association and now on leave from his Chair of Psychiatry at the University of California, was Dr. Laughlin's host and guide. Dr. Bowman arranged with Dr. Florencio N. Quintos, Medical Director of the Philippine General Hospital, for Dr. Laughlin to have a personally guided tour of the Hospital and the Medical Center in Manila. This was followed by other sightseeing trips and social events that proved very pleasant and instructive; but when the time arrived for Dr. Laughlin to return home he decided that a look at the world we live in was a far better idea. He quickly packed his bags, phoned the air line for reservations, and was off again.

He found the beautiful city of Hong Kong teeming with millions of Chinese refugees who had set up precarious housekeeping facilities along the remote fringes of the city. Despite the boiling over of the city's population, the orderly British are still in control and nowhere were there signs of panic or chaos. Still present is the evidence of the important part Hong Kong played in World War II. Rusting hullsand gawking superstructures of sunken Japanese ships still litter the city's waterline and cause many an anxious moment when the local pilots are guiding the ocean-going vessels into the harbor.

Hong Kong is a vibrant, living city, and the doctor would have liked to remain, but, since "time is of the essence," he took off again, this time to Bangkok, Calcutta, and New Delhi, India, where he tarried under the influence of the warm hospitality of Dr. Estella Warner, Chief Medical Officer for the United States Technical Coöperation Mission to India. While sightseeing in India Dr. Laughlin had the opportunity to visit the Taj Mahal and other interesting spots.

When the urge to go again overwhelmed the good doctor, he hastily embarked on another flying ship; his destination, Beirut, by way of Karachi in Pakistan and Basra in Iraq. Once in Beirut, he was taken in hand by Dr. Eugene A. Gillis, Chief of the Point Four Program for Lebanon, and formerly Chief of the Division of Commissioned Officers for the United States Public Health Service. Dr. Gillis arranged for him to meet one Professor Sabra, Chief of Neurology at the American University of Beirut, and to tour the new American Mental Hospital, whose physical plant rivals favorably any public or private facilities of like nature in the United States today. This hospital, Dr. Laughlin stated, is open for both public and private patients, and has treated certain members of the royal family who needed its facilities.

After an enjoyable and interesting stay in Beirut, Dr. Laughlin drove to Damascus, then flew to Rome and Zurich, and on to Paris and London. Dr. Laughlin said he was very grateful to a former Washington physician and official of the United States Public Health Service, Dr. Erwin C. Drescher, for an intensive tour of Paris.

In London, Dr. Laughlin was entertained by THE Dr. Ernest Jones, contemporary of Dr. Freud and the best known living psychoanalyst since Freud. Here in Elsted, in southern England, Dr. Laughlin was the guest in the ancient (1625) and historic home of Dr. Jones, where he spent several pleasant hours listening to old Dr. Jones reminisce of his friend Freud.

Among the many interesting incidents that Dr. Laughlin experienced was a harrowing one that left him a little weak and shaky. This was a midnight ride in a hired, chauffeur-driven car from Agra to New Delhi, India. The night was moonless and

(Continued on page 106)

THE 1954 DIABETES DETECTION PROGRAM

EDITOR'S NOTE: It is not often that a community project such as the annual Diabetes Detection Program has been conducted in such an efficient manner that it deserves the space allotted to Dr. Kurstin's article. It is being published not only because he has told his story well but as an illustration of how thoughtful planning brings results. Others interested in community health projects, it is believed, will profit by reading this article.

The officers and members of the Diabetes Association of the District of Columbia desire very much to extend their thanks and appreciation to The Medical Society of the District of Columbia and its members for the generous support given our Seventh Annual Diabetes Detection and Education Program, held the week of November 14–20, 1954.

About 400 Washingtonians donated their time, effort and expenses to help provide this annual invitation for free diabetes tests to the residents of the National Capital. They included 197 general practitioners and internists; 129 pharmacists and their establishments; nurses, technicians, hospital aides, Federal, District and industrial health authorities; and several prominent women's organizations devoted to civic help.

The work of these professional and lay volunteers in handling 18,987 tests for sugar in the urine and blood and detecting 720 positives, including a 22-month-old infant and a 74-year-old man, was a tremendously gratifying demonstration of community health service. I know you will be pleased to learn that the part played by the members of the Medical Society is worthy of the highest commendation. Throughout Diabetes Detection Week these 197 physicians ran 6,201 urinalyses, of which 127 were positives. They employed Clinitest Tablets and Galatest Vials, which the D. C. Diabetes Association furnished them and which in turn had been contributed to us by the manufacturers, the Ames Company, Inc., of Elkhart, Indiana, and the Denver Chemical Manufacturing Company, of New York, N. Y.

The Diabetes Detection and Education Program for 1954 embodied a number of innovations over previous years and thereby ensured its increasing acceptance in the District. We offered these 4 testing methods and facilities to the public, all without charge, and with no appeal for funds:

1. The physicians, previously referred to, volunteered to accept bottled urine specimens from the public and conduct urinalyses during the Week. Many doctors went beyond our original request, in October, for assistance and ran urinalyses on their regular patients whose ailments were far removed from the possibility of diabetes.

2. One hundred and twenty-nine member stores of the District of Columbia Pharmaceutical Association purchased and distributed thousands of diabetes self-testing devices, "Dreypaks," whose users mailed them to the Diabetes Testing Center in the Municipal Building, where the D. C. Department of Public Health generously provided us with a laboratory for processing and also a large office which served as a clerical, statistical, and telephone information center. A special number was assigned for Diabetes Week, and more than 2,000 calls from the public, seeking guidance on the availability of the various detection methods offered by the Diabetes Association, were received. The pharmacies this year became distribution stations for the "Dreypaks," which were introduced in Washington for the first time, and thereby were converted from collection stations for urine specimens as in the past. Nearly 9,000 "Dreypaks" (8,929 to be exact) were received at the Diabetes Testing Center in the Municipal Building and tested with Benedict's Solution, donated by Eli Lilly and Company, of Indianapolis, Indiana. Of this number, 373 indicated positives. We have notified the family physicians in all positive cases.

3. Twelve civilian hospitals scheduled urinalyses for their patients throughout the Week, and their total was 3,197, of which 136 indicated positives. The Diabetes Association is indebted to Dr. E. Clarence Rice, one of its founders, for this valuable information, as he volunteered to be a one-man committee in charge of compiling these statistics.

4. Provision was made for free blood sugar tests, with the enthusiastic help of the D. C. Department of Public Health and the U. S. Public Health Service. An automatic machine for diabetes detection, the "Clinatron," normally in operation at the D. C. General Hospital, was brought to the lobby of the Municipal Building and 660 blood sugars, of which 84 indicated positive, were conducted from Monday through Friday of Diabetes Week.

This year, Diabetes Detection Week enjoyed the endorsement and support, for the first time, of the President of the United States. In a telegram under date of November 13, 1954, to Dr. Henry B. Mulholland, of Charlottesville, Va., President of the American Diabetes Association, with which we are affiliated, President Eisenhower said:

"On the occasion of Diabetes Week, November 14–20, I wish to express to you and to the members of the American Diabetes Association my congratulations on your dedicated efforts to control this major disease. The Diabetes Detection drive, which you are now undertaking, is of great importance to our Nation's health. I earnestly hope that as many Americans as possible will arrange to be tested for diabetes during this week. I am informed that perhaps one million of our citizens are unaware that they have diabetes. Your drive should help many of them avoid the complications resulting from neglect of this disease.

"To you and your associates, I send my good wishes for a thoroughly successful campaign."

The Board of Commissioners of the District of Columbia, recognizing that "diabetes is one of the ten major causes of death" in Washington, issued a proclamation for the Week. It emphasized that "there is medical evidence that diabetes can be controlled; that many of our people have diabetes without being aware of it; that only by the discovery of their disease and proper medical care may these people be returned to normal, healthy and vigorous lives; and that during 'Diabetes Detection Week' the Diabetes Association of the District of Columbia, under the sponsorship of the American Diabetes Association, will offer the opportunity to all of us to obtain free tests for diabetes." The concluding paragraph of the proclamation urged every person to coöperate with the Diabetes Association of the District of Columbia "for the betterment of our health."

A third and compelling endorsement came from one of the greatest figures in the history of American sports, the late Mr. William A. (Bill) McGowan, of Silver Spring, Md., and the No. 1 Umpire in the American League, who died of a heart attack, December 9, 1954, shortly after his formal retirement from 30 years of strenuous service in major league baseball. Mr. McGowan volunteered his services to us two months in advance of the opening of the program. As a diabetic, he wanted to encourage the known and potential diabetics that the ailment could be controlled and his last public appearance in support of the program was on November 16, 1954.

The medical profession has lost a staunch friend and supporter in Mr. McGowan. Known to millions of sports fans, Bill McGowan wanted to alert the million or more of our citizens who are unknown diabetics to the wisdom of detecting it in its earliest stages so that it could be brought under control and those affected could continue to live the profitable and vigorous life for which he was so famous and respected.

Dr. Maurice Protas, an authority on diabetes detection, declares that "early detection of diabetes can reveal the disease three to five years before the usual symptoms appear." Dr. Protas, together with Dr. John A. Reed and Dr. E. Clarence Rice, formed the Diabetes Association of the District of Columbia as a non-profit organization and signed the original articles of incorporation on November 12, 1946.

While the D. C. Pharmaceutical Association stores were distributing the "Dreypaks" to their customers, the D. C. Diabetes Association conducted pilot surveys with these small strips of testing paper in the Federal and industrial organizations here. The coöperating agencies were the Department of Commerce (Main Building), the Civil Aeronautics Administration and the National Bureau of Standards, both of which are a part of Commerce, the Chesapeake and Potomac Telephone Company, and the Potomac Electric Power Company.

Members of the Committee on Diabetes Detection and Education for the 1954 Week were: Dr. Samuel D. Loube, Vice President of the D. C. Diabetes Association, and Dr. Louis K. Alpert, its Secretary-Treasurer; Colonel J. E. Ash, MC, USA(Ret.), Chairman of the Section on Pathology and Laboratory Medicine of the District Medical Society; Drs. Lewis A. Klein, Aaron G. Saidman, and Lawrence J. Thomas; Dr. A. Owen Penney, Past President of the Podiatry Society; Mrs. Nathan L. Gildenhorn, of the National Council of Jewish Women; Mrs. Hilda C. Griffith, Secretary, and Mr. A. Julian Brylawski, Treasurer, of the Lay Society of the D. C. Diabetes Association; Mrs. Albert I. Robins and Mrs. Benjamin Stein, Co-chairmen of the Women's Auxiliary of Phi Delta Epsilon medical fraternity; and Mr. A. J. Obert, Chairman of the Interprofessional Relations Committee of the D. C. Pharmaceutical Association.

Drs. Protas, Reed and Rice served as special advisors to the President and Chairman of the Committee.

It was a fine committee and an equally fine group of volunteers, all of whom brought great credit to their organizations in advancing the health of Washington. I can best illustrate this by referring to Dr. Saidman, who supervised the processing of the 8,929 "Dreypaks" and who remained at his post for more than a month after the program closed because the public continued to mail them in after the official Week ended. He was very efficiently assisted by Mrs. Griffith, Secretary of our Lay Society, and by his nurse and technician, Miss Catherine Looney, R.N.

DR. MUNDELL HONORED BY GEORGETOWN UNIVERSITY

Dr. Joseph J. Mundell (second from right), a Life member of the Medical Society of the District of Columbia, was honored by colleagues of Georgetown University Medical Center at a surprise luncheon on his 75th birthday, December 22, 1954. Dr. Mundell, Professor Emeritus of Obstetrics and Gynecology, taught at Georgetown from 1934 to 1947, and still conducts a private practice at 1616 Rhode Island Avenue, N.W.

At the luncheon Dr. Mundell was initiated into Alpha Omega Alpha, medical honor society. Handing him a certificate of membership is Dr. Francis M. Forster, Dean of Georgetown Medical School. Flanking Drs. Forster and Mundell are (right) Dr. Andrew A. Marchetti, Professor of Obstetrics and Gynecology, and the doctor's son, The Reverend Joseph Mundell.

Dr. Mundell has a son and a son-in-law who are physicians and members of the Medical Society: Dr. Benjamin J. Mundell, Clinical Assistant Professor of Obstetrics and Gynecology, and Dr. Robert J. Coffey, Professor and Director of the Department of Surgery, both on the staff of the Georgetown Medical School.

The Diabetes Association of the District of Columbia—honored by the approval of the District of Columbia Medical Society, just as the American Diabetes Association is honored by the endorsement of the American Medical Association—hopes that we shall continue to enjoy your support through the years to come.

William Kurstin, M.D.
President, Diabetes Association
of the District of Columbia
Chairman, 1954 Diabetes
Detection Program

WOMAN'S AUXILIARY NOTES

Mark Evans, Washington's well known radio and television personality, was at his most entertaining best when he spoke before the Woman's Auxiliary to the D. C. Medical Society on Wednesday, January 12.

Although his subject was "A Little Light in Darkest Africa," Mr. Evans said he would have preferred calling it "Africa, the Land of Contrasts." There are contrasts in climate, in terrain, in people (from the tallest to the smallest—the Pygmies, only four or five feet tall), and in the tolerant and understanding way the Belgians handle their race problem in contrast to the Mau-Mau situation.

His story of the medical missionary, the famous Dr. Albert Schweitzer, was touching. Dr. Schweitzer is an authority on sleeping sickness; he himself has been a victim of the disease and therefore knows it firsthand. The tribal customs of the natives and especially Mr. Evans' own experiences among the dancing women were amusing. He told of big game hunting and how he killed an elephant—most regretfully, he said, but the joy of the Africans was unbounded. Since they are not allowed to carry fire-arms, meat of any kind is cause for rejoicing, starved as they are for protein.

A very large and interested audience went, in imagination, with Mr. Evans on his safari. We were captivated by the thrilling adventures and experiences and would have listened much, much longer.

If our entertainment committee continues to provide such excellent programs, very soon admission will have to be by "card only" or else we shall have to seek larger quarters (members were sitting on the floor at this meeting). To be sure, the delicious luncheons provided by the House Committee (at such a reasonable price) is quite a contributing factor to the splended attendance.

MRS. ALBERT E. MARLAND
Publicity Chairman

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, March 28, 1955.

For Active Membership

Charles K. Bush, Jr., University of Louisville—1929
John F. J. Clark, Howard University—1946
James R. Coleman, University of Buffalo—1953
I. Howard Kaiser, New York Medical College—1948
Samuel S. Morrison, Harvard University—1947

For Associate Membership

Irving L. Berman, Middlesex University—1940
Walter Kurland, George Washington University—1945
Lyman C. Wynne, Harvard University—1947

The following applicants for membership were duly elected to membership by the Executive Board, December 27, 1954, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Thomas L. Auth, 4616 Olden Road, Rockville, Md.
Richard G. Board, 3000 Connecticut avenue, N.W.
Thomas F. Cleary, 621 Forrester Street, S.E.
William S. Cole, 10601 Bucknell Drive, Silver Spring, Md.
Morton C. Creditor, 10304 Brunswick Avenue, Silver Spring, Md.
Francis J. Crilley, Jr., 1200 18th Street, N.W.
Raymond O. Dart, 2025 E Street, N.W.
Frank J. DiTraglia, 4426 South Capitol Street
William T. Driebe, Georgetown Hospital
Benedict J. Duffy, Jr., 4905 Crescent Street, N.W.
Leon J. Epstein, St. Elizabeths Hospital
William R. Felts, Jr., George Washington University Hospital
Robert J. Fink, 915 19th Street, N.W.
James M. Frawley, 2202 Colston Drive, Silver Spring, Md.
Milton S. Glatt, 4435 35th Street, N.W.
Samuel C. Gordon, 3317 N Street, N.W.
Grace H. Guin, 3118 Key Boulevard, Arlington, Va.
William M. Hart, 1801 K Street, N.W.
William P. Herbst III, 1801 Eye Street, N.W.
James A. Kehoe, 1801 K Street, N.W.
Harry J. Kicherer, 2205 Richland Street, Silver Spring, Md.
William P. McKelway, 1150 Connecticut Avenue, N.W.
Louis J. Maciulla, 5125 Georgia Avenue, N.W.
Albert E. Marland, Jr., 4326 Forest Lane, N.W.
Homer B. Matthews, St. Elizabeths Hospital
Bertle Nelson, 1150 Connecticut Avenue, N.W.
Robert W. Painter, 1801 Eye Street, N.W.
Felix D. Paolucci, 1801 Eye Street, N.W.
J. Winthrop Peabody, Jr., 1150 Connecticut Avenue, N.W.
Theodore R. Pinckney, 4832 Deane Avenue, N.E.
Antoinette F. Popovici, 1801 Eye Street, N.W.
James G. Primm, 149 W Street, N.W.
Harry Hugh Rosenthal. 922 Kennedy Street, N.W.
Andrew E. Rudnai, 1025 Connecticut Avenue. N.W.
Sydney G. Salus, 28 Crittenden Street, N.E.
Melchior F. R. Savarese, 2807 Connecticut Avenue, N.W.
Harold W. Schnaper, Veterans Administration Hospital
Eugene D. Schwartz, 1835 Eye Street, N.W.
Jack P. Segal, 2250 Washington Avenue, Silver Spring, Md.
Charles D. Shields, 5604 Overlea Road, Sumner, Md.
Armando M. Sison, 1601 Argonne Place, N.W.
Muriel S. Sowers, 4704 Wisconsin Avenue, N.W.
Mitchell W. Spellman, Howard University School of Medicine
Robert B. Sullivan, 8506 Garfield Street, Bethesda, Md.
William M. Trible, 2339 Massachusetts Avenue, N.W.
John William Winkler, Jr., 3801 Minnesota Avenue, N.E.

Associate Members

Raymond Feldman, 10206 Greenfield Street, Kensington, Md.
Jean D. Lockhart, 203 South Columbus Street, Alexandria, Va.
Stephen R. LoVerme, Veterans Administration Hospital, East Orange, N. J.
Bennet A. Porter, Jr., 9301 Colesville Road, Silver Spring, Md.

Resident-Intern Members

Harry N. Carlton, 3403 Rolling Court, Chevy Chase, Md.
Harold I. Passes, 1401 Patrick Henry Drive, Falls Church, Va.
James H. Stallings, Jr., 2726 Ordway Street, N.W.

News and Personals

MEETINGS—Past and Future

The Tenth Annual Series of Intensive Postgraduate Courses, offered by the **George Washington University School of Medicine,** will be given during March 1955. The program this year will include four courses as follows:

Obstetrics, March 7–11
Surgical Physiology, March 14–18
General Medicine, March 21–25
Metabolic Diseases, Arthritis and Gastroenterology, March 28–April 1

Each of these courses will be full-time and intensive. The hours will be 9 to 4:30 daily, Monday through Friday. Facilities are available for the delivery of telephone messages and for the maintenance of contact with one's office or practice if that is desired. In previous years, 30 to 40 physicians have attended each of the courses offered and a comparable registration is anticipated this year, according to Dr. Thomas M. Peery, Director of Postgraduate Instruction. All sessions are held in the George Washington University Hospital. The fee for each course is $75.

The instruction is designed for the busy practicing physician. Mimeographed notes and a certificate are issued to all those enrolled. A get-acquainted dinner on Monday night is a feature of each of these courses.

A catalog giving the full details of each course is available and will be mailed out upon request. Further information is available from the Office of the Director of Postgraduate Instruction, 901 23rd Street, N.W., Washington 7, D. C.

The 1955 series of **Kellogg Lectures,** offered as a part of the postgraduate program of the **George Washington University School of Medicine,** will be presented during March. These lectures are given in Hall A of the School of Medicine, 1335 H Street, N.W., beginning at 8:30 p.m. The topics and speakers are given below:

March 7—"Childbearing Function and Pelvic Tumors," Dr. John I. Brewer, Chairman of the Department of Obstetrics and Gynecology, Northwestern University
March 14—"Physiologic Problems in Gastric Surgery," Dr. Robert M. Zollinger, Chairman of the Department of Surgery, Ohio State University
March 21—"Current Status of the Problem of Chronic Pulmonary Emphysema," Dr. George W. Wright, Head of the Department of Medical Research, Saint Luke's Hospital, Cleveland, Ohio
March 28—"The Vascular Complications of Diabetes," Dr. Henry T. Ricketts, Professor of Medicine, University of Chicago

These lectures are planned primarily for physicians and medical students of the Washington area, all of whom are invited to attend.

Attention is directed to the **26th Annual Meeting of the Aero Medical Association,** which will be held at the Hotel Statler, March 20–23. Physicians from all parts of the United States and from several foreign countries are expected to attend and participate in the presentation of scientific reports on aviation medicine. The program, Monday, March 21, will begin with a paper on "The Changing Complex of Aviation Medicine" by Air Commodore T. C. Macdonald of the Royal Air Force of Great Britian.

Postgraduates Courses arranged by the **American College of Physicians** for the spring months of 1955 include three on the Eastern Seaboard. They are:

March 14–18: Diseases of the Blood Vessels and Problems of Thromboembolism—Diagnosis and Treatment. Cornell University Medical College and The New York Hospital, New York, N. Y. Dr. Irving S. Wright, Director; Dr. William T. Foley, Associate Director.
March 28–April 1: The Early Detection and Prevention of Disease. University of Pennsylvania School of Medicine,

Philadelphia, Pa. Dr. John P. Hubbard, Director; Dr. Norbert J. Roberts, Co-director.

April 20–23: Stress and Aging. The Lankenau Hospital, Philadelphia, Pa. Dr. Edward L. Bortz, Director; Drs. Malcolm W. Miller and Daniel B. Pierson, Jr., Associate Directors.

The registration fee for members is $30 and for non-members, $60. All registrations should be made through the Executive Offices of the College, Mr. E. R. Loveland, Executive Secretary, 4200 Pine Street, Philadelphia 4, Pa.

Dr. Wallace M. Yater, Director of the Yater Clinic and a Regent of the College, will be one of the instructors for the course to be given at the Lankenau Hospital, Philadelphia. In a Panel Discussion on Stress and the Vascular System, April 20, Dr. Yater will contribute his views on "Significant Trends in Research."

The District of Columbia Dental Society is holding its **23rd Annual Postgraduate Clinic** at the Shoreham Hotel, March 13–16. The four-day program will feature registered clinics, table clinics, panel discussions, and scientific exhibits, together with a number of social activities. Physicians are invited to attend any of the scientific meetings and to view the scientific exhibits.

The Rheumatism Society of the District of Columbia devoted its meeting, January 20, to a discussion of "Prevention of Streptococcal Disease." A "Review of the History of Prophylactic Measures" was given by Dr. Bernard J. Walsh and a paper on "Prevention and Control of Streptococcal Disease in Recruit Training Stations," by Commander John R. Seal, MC, USN, of the Preventive Medicine Division, Navy Bureau of Medicine and Surgery. Panel discussants, led by Dr. Thomas McP. Brown, included Drs. Walsh, Seal, Harold Jeghers and Margaret Nicholson. The final number on the program was a paper on "Commissurotomy of Rheumatic Heart" by Dr. Charles A. Hufnagel.

The George Washington University Medical Society held its January 19 meeting in the Medical Society's auditorium. Dr. Charlotte Donlan was the principal speaker; her subject, "The Combined Use of Radiation Therapy and Intra-arterial Aureomycin in the Treatment of Cervical Cancer." Her paper was discussed by Drs. William W. Stanbro and J. Keith Cromer. Refreshments were served in the Library following the meeting.

The Jacobi Medical Society met for dinner and program, January 17, at the Washington Hotel. Dr. Charles G. Aronstein, President of the Society, presided. The guest speaker was Martin Agronsky, radio and TV commentator, who spoke on "Judaism and Freedom."

The Arlington County Medical Society elected the following officers at its meeting, December 16, at the Washington Golf and Country Club:

Dr. H. Clark Bates, *President*; Dr. Herman F. Diamant, *Vice President*; Dr. Stephen J. Sheehy, *Secretary*; and Dr. Thomas A. McGavin, *Treasurer*.

Drs. Bates and Sheehy are Associate members of the District Medical Society.

GENERAL NEWS

Plans for the 25th ANNUAL SCIENTIFIC ASSEMBLY are rapidly shaping up under the able chairmanship of **Dr. Alfred A. J. Den.** Dr. Den has appointed the following members to serve as chairmen of committees for the 1955 ASSEMBLY:

Program: Dr. Oscar B. Hunter, Jr.
Scientific Exhibit: Dr. Marcel J. Foret
Motion Pictures: Dr. Ralph D. Whitley
Attendance: Dr. Josephine E. Renshaw
Social Affairs: Dr. Earle B. Thompson
Finance: Dr. Karl C. Corley
Women's Medical: Dr. Mary K. L. Sartwell

Mr. Leo G. Schmelzer, Administrator of **Garfield Memorial Hospital,** resigned his position, effective February 14, to accept a similar post as Director of the Wilmington (Delaware) General Hospital.

Mr. Schmelzer, a graduate of the University of Wisconsin, came to Washington in 1945 from Madison, where he was Business Manager of the Wisconsin State General Hospital and Student Infirmary. He was Superintendent during the building and first years of operation of the new George Washington University Hospital; in 1949 he accepted the position of Administrator at Garfield.

Mr. Schmelzer has served on the Executive Committee of the Hospital Council of the National Capital Area since the Council was organized 9 years ago. In 1952–53 he was a member of the District Commissioners' Advisory Committee on Municipal Hospitals. He is a Past President of the Maryland-District of Columbia-Delaware Hospital Association.

The Washington Metropolitan Area is losing another hospital official, **Mr. Van C. Adams**, Administrator of **Alexandria City Hospital** for the past 7 years, whose resignation will become effective, March 1.

A native of Prentice, Wisconsin, Mr. Adams graduated from the University of Minnesota. Before coming to the Alexandria Hospital in 1948 he had served as Superintendent of the Jewish Hospital in Cincinnati for 7 years.

Dr. V. L. Ellicott, who was Health Officer for Montgomery County (Maryland) for 22 years, has been appointed Chief of the Bureau of Medical Services and Hospitals for the Maryland State Health Department. In his new position, he will be in charge of the state's home medical care program, the program for aiding hospitals in financing indigent patients, and the distribution of Hill-Burton funds. Dr. Ellicott resigned as Health Officer last year to become acting director of the chronic disease program in the Maryland Department of Health. Upon moving to Baltimore to take up his new duties, he resigned his Associate membership in the D. C. Medical Society.

In perusing the Advertising Section of the January issue of the Medical Annals, members will have noticed the six-page series of ads displaying Panmycin, a product of the **Upjohn Pharmaceutical Company** of Kalamazoo, Michigan. In this new and unusual series, Upjohn is featuring electron photomicrographs of 6 of the more than 30 common pathogenic organisms susceptible to Panmycin. The organisms have been magnified far beyond anything most physicians have probably ever seen. A human hair, magnified in the same proportion as these organisms—approximately 35,000 diameters—would be about 10 feet in diameter. To produce one finished photograph requires from 3 hours to 3 weeks, depending upon highly variable technical difficulties.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
November 7	Dr. Julius Schreiber	Emotional Problems of the Young Adult	Young Adult Forum, Unitarian Church
November 29	Dr. Julius Schreiber	Emotional Needs of Children	Meridien Hill Preschool-Parent Group
December 1	Dr. Julius Schreiber	The Emotionally Healthy Family	Arlington Jewish Community Center
January 6	Dr. Marvin I. Mones	Seizures in Children	United Cerebral Palsy of Montgomery County, Inc.
January 9	Dr. P. A. McLendon Dr. Daniel L. Seckinger Dr. William B. Walsh Dr. William N. Wooldridge	The Common Cold	WMAL-TV Washington Report
January 12	Dr. Anthony Zappala	Discussion of film, "Alcoholism"	D. C. Mental Health Association
January 30	Dr. William M. Ballinger Dr. Harry S. Bernton Dr. Robert Stolar	Super Sensitive	WMAL-TV Washington Report

PERSONALS

Dr. William Foster Burdick was named Chief of the Medical Staff of **Children's Hospital,** January 10. Since the death in September, 1954, of Dr. Hugh J. Davis, he had been serving as Acting Chief of Staff.

WILLIAM F. BURDICK, M.D.

Dr. Burdick has been affiliated with Children's Hospital since 1929; he was associate in pediatrics until 1945, and has been attending pediatrician since then. He has been Chief of Staff of Suburban Hospital for the past two years and head of its Pediatrics Department since it opened in December, 1943.

Dr. Burdick was Clinical Instructor in Pediatrics at Georgetown University School of Medicine from 1930 to 1942 and Associate Professor of Pediatrics for the next three years. He is presently Clinical Professor of Pediatrics. He is a diplomate of the American Board of Pediatrics and a member of the American Academy of Pediatrics.

Dr. Frank D. Costenbader, was appointed Vice Chief of Staff.

Dr. William S. Anderson was reëlected Secretary-Treasurer of the medical staff.

Dr. Benedict J. Duffy, Jr., formerly head of the Radioisotope Laboratory, U. S. Naval Hospital, Bethesda, Md., has been appointed Director of the newly established Clinical Isotope Laboratory at the **Georgetown University Hospital.** The investigations being conducted by Dr. Duffy are those related to thyroid function and the localization of radioisotopes in tumor tissue.

Dr. Francis Thomas Coleman has been appointed Medical Director of **Catholic University,** succeeding the late Dr. John A. Simpson, who died, October 26, 1954.

Dr. Coleman is an alumnus of Georgetown University School of Medicine, Class of 1934. He has been engaged in the private practice of medicine in Washington since 1939. During the War years he served with the U. S. Army Air Force in the European theater. He plans to continue his private practice of medicine in offices at his home, 5315 16th Street, N.W., and is maintaining the office of the late Dr. Simpson at 1018 Monroe Street, N.E.

Three members of the Medical Society of the District of Columbia participated in the **Annual Clinical Conference of the Louise Obici Memorial Hospital** in Suffolk, Virginia, January 19. In the afternoon session, devoted to a Panel Discussion on Medical and Surgical Diseases of the Lung, **Dr. Sol Katz** was moderator, and **Dr. Brian Blades** presented the surgical aspects. Dr. Walter B. Martin, President of the American Medical Association, was the speaker at the evening session. **Dr. George J. Carroll,** on the hospital staff at Suffolk, an Associate member of the District Medical Society, was Chairman of the Committee on Arrangements.

Dr. June Carol Shafer assisted in the teaching program on radiation during the 13th Annual Meeting of the American Academy of Dermatology and Syphilology, in Chicago, December 4–9. A paper on "Prevention of Radiation Injuries" was presented by Dr. Shafer.

Dr. William A. Howard and Dr. Harry S. Bernton appeared on the program of the American Academy of Allergy during its 11th Annual Meeting at the

Hotel Statler, New York, February 7, 8 and 9. Dr. Howard presented a paper on "Childhood Complications of Respiratory Allergies" and Dr. Bernton discussed a paper on "Gamma Globulin and the Asthmatic Child," contributed by Dr. Ralph Bowen of Houston, Texas.

Dr. James Alexander Lyon has returned to Washington after spending several weeks in Europe, where he visited Portugal, Spain, France, Italy and Ireland. Dr. Lyon attended the Third International Congress on Diseases of the Chest, sponsored by the American College of Chest Physicians, October 4-8, 1954, in Barcelona. He presented a paper to the Congress on "Evaluation of Certain Cardiac Arrhythmias." He also participated in a panel discussion on cardiovascular diseases.

A memorial window in honor of the late **Dr. Jesse T. Mann,** an Active member of the Medical Society of the District of Columbia, who died, February 14, 1953, was dedicated in the new Chevy Chase Methodist Church, January 2, 1955. Bishop G. Bromley Oxnam was present to give the dedicatory address and to consecrate the 20 beautiful, stained glass windows in the church which had been donated in the memory of members and families. Dr. Mann had been active in the church during his lifetime and had been a member of its Board of Stewards for many years.

Mutual problems of doctors and lawyers were discussed at a dinner meeting of the Arlington Bar Association, January 20, at the Washington Golf and Country Club. Participants in the panel discussion included **Dr. William D. Dolan,** an Associate member of the District Medical Society; **Dr. Clifford E. Bagley,** an Affiliate member; and Dr. Lloyd B. Burk, Jr., all Arlington, Va. physicians.

Dr. Roland H. White, of Silver Spring, Maryland, an Associate member of the District Medical Society, has been appointed to the Board of Directors of the Washington Hearing Society for a three-year term.

Dr. Hugh S. Geiger, Jr., has opened his office for the general practice of medicine at 1818 Beaver Avenue, Des Moines, Iowa.

Dr. James A. Gannon, Jr. was invited to address the medical staff of St. Vincent's Hospital in Jacksonville, Fla., January 11. He spoke on "First Aid Treatment of Burns in Children."

Dr. Joseph M. Barker, formerly of the Yater Clinic, has moved to California, where he is engaged in the practice of his specialty, cardiology. His office is located at 436 North Roxbury Drive, Beverly Hills.

Dr. William M. Leavenworth, a Resident-Intern member of the Medical Society, is now in Jacksonville, Florida, where he is Associate Radiologist at the Duval Medical Center.

CORRESPONDENCE

WASHINGTON, D. C., January 11, 1955

TO THE EDITOR:

In the November, 1954 issue of the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA, there appeared an editorial entitled "Danger in the Community" by Dr. James J. Feffer in which he criticized certain aspects of tuberculosis control in the District of Columbia. This editorial contained misinformation with regard to the Bureau of Tuberculosis of the District of Columbia and its personnel. In fairness to the local medical profession and the public, I feel some factual data concerning the isolation and treatment of cases of tuberculosis are in order.

First, the concepts of the transmission of tuberculosis are well known to the Bureau of Tuberculosis. The isolation of indigent patients with tuberculosis has long been a problem in the District of Columbia and will continue so; the irresponsibility of this type patient, whether he has active or inactive tuberculosis, is well known. It has always been the policy of the Bureau of Tuberculosis to hospitalize all patients with active tuberculosis. Home isolation of new active cases is attempted only until hospitalization can be arranged.

Second, the present-day treatment of tuberculosis has dramatically changed with the advent of antituberculosis chemotherapy. The treatment of tuberculosis with these chemotherapeutic agents while the patient is isolated at home has been carried out by various tuberculosis agencies elsewhere to gain information as to its value. The results and feasibility of such "home care" treatment programs are not definitely known at present. However, it would seem to be of value to treat such patients while waiting admission to a tuberculosis sanatorium. The Baltimore City Health Department has reported a lowering of the mortality rate by 50 per cent while carrying out such a program in 1953 and 1954.

The "home care" treatment of tuberculosis as carried out by the Bureau of Tuberculosis of the District of Columbia was designed with the above facts in mind and was prompted by an overcrowded tuberculosis hospital situation. At no time has "home care" been advocated or deemed desirable as a substitute for hospitalization.

This editorial also stated that, as of September 29, 1954, there were 128 vacant beds in the various District of Columbia tuberculosis hospitals. These vacancies were attributed to the "home care" treatment of active cases of tuberculosis. However, effective July 1, 1954 (3 months prior to the above-mentioned statistics), the District of Columbia Bureau of Tuberculosis discontinued "home care" treatment of newly discovered cases of tuberculosis since hospital beds were available for treatment. There are certainly many other factors than the "home care" treatment of tuberculosis, by the District of Columbia Bureau of Tuberculosis, which have a bearing on bed vacancies in our tuberculosis hospitals. One consideration is that more private physicians are treating patients for tuberculosis with chemotherapeutic agents and may reflect on the tuberculosis hospital census.

These comments are based on interpretations of the policies established by the Bureau of Tuberculosis and known to the members of the clinic supervising tuberculosis control in the District of Columbia. It is hoped these remarks may clarify any misunderstanding referable to the present management of tuberculosis by the Health Department of the District of Columbia.

Thomas L. Hartman, M.D.
Attending Physician, District
of Columbia Chest Clinic

BOOK REVIEWS

Current Concepts in Digitalis Therapy. Bernard Lown, M.D., formerly Assistant in Medicine, Peter Bent Brigham Hospital, and Samuel A. Levine, M.D., Clinical Professor of Medicine, Harvard Medical School; Physician, Peter Bent Brigham Hospital. Price, $3.50. Pp. 164. Boston: Little, 1954.

In 2 brief, very compact chapters, Drs. Lown and Levine discuss the action and clinical use of digitalis, and digitalis intoxication. The difficulties involved in reaching the conclusion that a patient is digitalized are reviewed, as is the problem of deciding whether a patient's symptoms are due to toxicity of digitalis or to progressive failure with inadequate digitalis. The gravity of digitalis intoxication is stressed, as well as its rising incidence due to therapeutic measures which involve shifts in electrolytes.

The effect of the electrolytes magnesium, calcium, and potassium on the digitalized myocardium is presented. Changes in potassium are the most important clinically, and the authors present evidence that during failure, potassium is lost from the body, especially from the intracellular compartments with the serum levels usually remaining normal. The losses of myocardial potassium, and the factors contributing to it are well discussed.

The relationship of potassium to digitalis intoxication is considered in a separate chapter. The evidence for the relationship is well presented, and clinical applications made clear.

Perhaps the most interesting and valuable half of the book is that dealing with paroxysmal atrial tachycardia with block. The ECG features, the relationship to digitalis toxicity, the treatment and prognosis are beautifully presented. There are many plates to illustrate ECG changes.

Finally, a description of a digitalis tolerance test is given. This is carried out with ultra-short-acting acetyl strophanthidin. The test makes possible the distinction between patients whose extreme failure and/or arrhythmias are due to digitalis intoxication from those who require more digitalis. This test can obviously help make life-saving decisions.

Sydney P. Hecker, M.D.

The Concept of Schizophrenia. W. F. McAuley, M.D., Belf., D.P.M., R.C.P.S.I., Principal Psychiatric Registrar, Downshire Hospital, Northern Ireland; Late Surgeon Lieutenant R.N.V.R. With a foreword by John H. Ewen, F.R.C.P., D.P.M., formerly Physician and Lecturer in Psychological Medicine at the Westminster Hospital. Price, $3.75. Pp. 145. New York: Philosophical Library, 1954.

The compact size of this little book (139 pages) in contrast to its monumental subject gave me high hopes that, here at last, I would find a good summing-up of our present knowledge of schizophrenia in concise, readable form. My hopes were further encouraged by the statement in the preface that "The purpose of this book is to estimate present knowledge of schizophrenia, to assess the historical background and evolution, and to indicate the importance of heredity and environment." Finally (perhaps moved by the similarity of the author's name to that of the great English historian), I had hoped to discover a monograph written in clear, limpid prose.

Unfortunately, I was doomed to disappointment on all 3 counts. The book, which claims to be based on "comprehensive inquiry," displays a deplorable lack of comprehensiveness. For example, there is no mention of the work of Harry Stack Sullivan, or Frieda Fromm-Reichmann, both of whom have contributed heavily to the subject. Kallmann's work on the role of heredity is given inadequate and unclear treatment. No mention is made of Hollingshead's studies on schizophrenia and social class. These are only a few of the glaring omissions. The section on historical development is jerky and disconnected so that the total effect on the reader is quite unsatisfying. The only treatments discussed are insulin and leucotomy and these are discussed so briefly as to have little value.

This book is too rudimentary for the psychiatrist, too disorganized for the general practitioner, and too sketchy for the medical student. All three would do better to consult any of the standard modern texts on psychiatry for a clearer statement on the perplexing problem of schizophrenia.

ZIGMOND M. LEBENSOHN, M.D.

A Ciba Foundation Symposium: The Chemical Structure of Proteins. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., B.Ch., AND MARGARET P. CAMERON, M.A., A.B.L.S., *Editors*. Price, $6.00. Pp. 222, with 49 illustrations. Boston: Little, 1954.

It may surprise those not familiar with progress in this field that the current studies of protein chemists aim at an understanding of protein structure. Indeed initial successes are on record with certain small proteins and peptides such as insulin, tyrocidine and ACTH. Although the present monograph does not attempt a complete coverage of all achievements in this new field, it does perhaps include the more significant developments of the past two or three years. Diversity of viewpoint is of certainty enhanced by the international scope of this undertaking.

A primary requisite is, of course, isolation of the protein in pure form. The latest procedures for obtaining such preparations are presented, in each instance by those who contributed importantly to the development of the method. The particular advantages and limitations of counter current distribution, ion exchange chromatography, partition column chromatography, and paper chromatography (not including paper electrophoresis) are discussed critically.

The second step in the approach involves tagging and identifying terminal residues at the free amino and free carboxyl ends of the polypeptide chain. The several chemical and enzymatic procedures available for this are dealt with in regard to the variable applicability of each. In an important application of this technic, elucidation of the trypsinogen-trypsin transformation has been in part obtained. The further degradation of protein, either stepwise or by splitting of specific bonds—essential for ultimate analysis of the internal structure of the peptide chains—is less advanced chemically. However, some promising recent developments are discussed. By such means, it should become possible to determine the sequence of amino acid residues in larger proteins as achieved heretofore by Sanger for the relatively short peptide chains of insulin.

Intended primarily for biochemists, this work provides a convenient review of recent developments. More important, it affords through the enlightened discussions of each paper a stimulating association with current ideas and thinking in a field where chemical principles are finding new application. The clinician long removed from fundamental studies may feel impatient at the failure as yet to explain the action of enzyme and hormone proteins in chemical terms. The absence of summaries at the conclusion of each paper decreases the usefulness of this work for the casual reader. However, the experimentally-minded physician would be well rewarded to take the opportunity of viewing the recent brilliant progress in this most basic of biological studies.

SAMUEL S. SPICER, M.D.

CARYL BURBANK, M.D.

(1880–1955)

Dr. Caryl Burbank, a Life Member of the Medical Society of the District of Columbia, who had practiced medicine in Washington for 50 years, died unexpectedly, January 10, 1955, while in Rockville, Maryland on business. He lived at 3813 Legation Street, N.W., and had offices at 1801 Eye Street, N.W. He specialized in internal medicine.

Dr. Burbank was a native Washingtonian, born, January 1, 1880, the son of Daniel and Agnes Stailey Burbank. He attended the public schools and graduated from Georgetown University School of Medicine in 1903. The next two years he spent at Garfield Memorial Hospital, first as intern and later as resident physician.

Dr. Burbank opened an office for the private practice of medicine in the District of Columbia in 1905. He was Associate Professor of Medicine at Howard University from 1908 to 1932; he was internist on

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the staff of Freedmen's Hospital during the same period.

During World War I he was medical examiner for draft inductions. He was also chief medical examiner for the American Red Cross during World War I. During World War II, he was a member of the Medical Advisory Board for Selective Service. Since 1929 he had been a member of the District of Columbia Board of Examiners in Medicine and Osteopathy.

Dr. Burbank was elected to Active membership in the District Medical Society in 1913 and became a Life member on January 1 of this year. He was a member of the American Medical Association, the American Heart Association, the Washington Medical and Surgical Society, which he had served as President, and the Georgetown Clinical Society.

He was a member of the Manor Country Club and the Kenwood Golf and Country Club.

Surviving him are his wife, Mrs. Helen Fitz Burbank, and a son, Dr. Daniel N. Burbank, of Cedar Grove, New Jersey.

DEPUE HAZEN DUFFEY, M.D.

(1903–1954)

Dr. Depue Hazen Duffey, Washington general practitioner for 25 years, died suddenly, December 13, 1954, at his home, 4600 Argyle Terrace, N.W. His offices were at 4200 Ninth Street, N.W.

Dr. Duffey was born in Washington, D. C., October 9, 1903, the son of the late Dr. H. Clarence Duffey and a brother of the late Dr. Hugh C. Duffey, both Washington physicians. After graduating from George Washington University School of Medicine in 1928 he interned at Garfield Memorial Hospital. He began private practice in Washington in 1929. He was a visiting staff member of Sibley and Garfield Hospitals.

Dr. Duffey became an Active member of the District Medical Society in 1932. He was a charter member of the Louis Mackall Medical Society, and a member of the American Medical Association and the Academy of General Practice. He was a Director of the McLachlen Banking Corporation.

He leaves his wife, Mrs. Esther Borden Duffey; a son, Depue Hazen Duffey, Jr., living at home, and two daughters, Miss Ellinor O'Neill Duffey, also of the home address, and Mrs. Joseph W. Voss, of 812 Chesapeake Street, S.E.; two sisters, Mrs. Mary Cramer, of 2627 Adams Mill Road, N.W., and Miss Margaret Duffey, of 3911 Morrison Street, N.W.; and a brother, Horace R. Duffey, of Los Angeles, Calif.

Devices and Delusions—Kerlan

(*Continued from page 72*)

strongly that the protection provided by the Food, Drug and Cosmetic Act from misbranded and adulterated devices is an extensive and continuing task. Only with the full coöperation of physicians can the Administration maintain proper labeling of devices in the interest of public welfare.

On the Lighter Side—Kadan

(*Continued from page 94*)

black, and the roads were tortuous and narrow. Driving at breakneck speed, the chauffeur seemed to increase his speed whenever another car was visible on the roadway and nearly wrecked the car on some of the turns. This caused the passengers some concern and a bit of trouble from the ole G-I tract. Later the passengers learned that the car had been stolen and the driver was afraid of being apprehended, thus the reason for his reckless and dangerous driving.

In the Far East, Dr. Laughlin stated, there were floating restaurants that were no larger than a good-sized banquet table. On the eating deck were facilities for catching and cooking a fish dinner on one side and facilities for disposing of same on the opposite side. This cozy arrangement proved to be very convenient for some of the patrons, but not conducive to the pampering of a fragile appetite or a sensitive stomach.

I asked Dr. Laughlin what one thing about his trip was the most impressive and he replied, the ease and speed of the transportation. The entire trip was made by air on three different air lines with no unpleasant incidents or delaying accidents.

J. Earl Kadan, M.D.

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THE USE OF HYPOTHERMIA IN CARDIAC SURGERY, INCLUDING A REPORT OF FOUR PATIENTS*†

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EDGAR W. DAVIS, M.D., F.A.C.S.
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Washington

AT THE present time there are several technics for closed or indirect intracardiac surgery in which maneuvers within the heart are done blindly, the surgeon being guided only by the feel of the instrument or the finger. Examples of the nonvisual approach in cardiac surgery include commissurotomy for severe mitral stenosis by means of finger fracture or special knife, and incision of stenotic pulmonary or aortic valves by valvulotomes inserted through the heart walls. These procedures, though not ideal, are quite satisfactory for the partial relief of these conditions. However, in large congenital defects of the auricular or ventricular septum it is only by the development of a surgical technic which permits opening the heart and closure of the defect under direct vision that we can expect to benefit the patients having such defects. Certain patients who have, in addition to a ventricular septal defect, narrowing of the outflow tract of the right ventricle either at the infundibulum or the pulmonary valve and a dextroposed aorta overriding the septal defect would be better treated by removal of the infundibular or valvular obstruction under direct vision than by the creation of an aorto-pulmonary shunt. This last group, all of whom are cyanotic, is classed under the heading of tetralogy of Fallot.

The first method suggested to improve upon these technics was the construction of a mechanical heart,[1-8] a pump to furnish the driving force for blood in association with an oxygenator which might be the patient's lungs, a homologous lung, or a mechanical device. It was thought that the mechanical heart would make possible the temporary removal of the heart from the circulation for a period long enough to permit intracardiac surgery under direct vision. The technical difficulties associated with the manufacture and use of such an extracorporeal heart have been of such great magnitude as to make this appear an impractical device at this time.

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* From the Cardiac Service and the Departments of Anesthesiology and Thoracic Surgery, Children's Hospital, Washington, D. C.

† This investigation was supported in part by research grant H-1762 from the National Heart Institute of the National Institutes of Health, United States Public Health Service.

A very recent and promising approach to direct surgery of the open heart has come about through the work of Lillehei and his associates[9] at the University of Minnesota. This group has used the heart and circulation of a normal individual connected to the patient by peripheral artery-to-vein hookup with a simple mechanical pump interposed between the patient and the normal individual. This has permitted the isolation of the patient's heart in a bloodless field and the successful repair of intracardiac defect in several patients.

Another approach, largely developed by Swan and his group[10, 11] at the University of Colorado, permits the opening of the heart and the repair of cardiac defects under direct vision. This is based on the knowledge that cooling of the body lowers the metabolic rate, reduces markedly the demand for oxygen by the tissues, and simultaneously enables the blood to carry more oxygen both in physical solution and as oxyhemoglobin. In fact, the oxygen requirement at 20°C is only about one fifth that at the normal temperature of 37°C. This is particularly important in those with cyanotic congenital heart disease.

Rather extensive experimental and clinical evidence indicates that hypothermia permits such surgery without extensive risk. For 150 years data[12] have been accumulated on the effects of hypothermia, chiefly from animal experiments, but occasionally from experiments on human beings, such as those reported in 1940 by Smith and Fay[13, 14] on patients with far-advanced malignant disease, and those performed by the Nazis on concentration camp inmates during World War II.

It was in 1942 that many of the physiologic effects on human beings of rapid cooling even to the point of death were determined under the direct order of Heinrich Himmler, the Nazi leader. In these experiments,[15, 16] which resulted in approximately 100 deaths, more than 300 experimental subjects were used in about 400 experiments. The problems studied included the treatment of persons who had been exposed by shipwreck to cold water for long periods of time, and the possible physical and pharmacologic methods of attack. It was hoped that the problem of the mechanism of death from cold would be solved. It was stated that it was especially difficult to carry the findings in animals over into the human field, since in the warm-blooded animals there is a varied degree of development in the temperature-regulating mechanism and also the processes in the skin of the pelted animal could not be carried over to man. During these experiments fairly complete physiologic studies were carried out with respect to changes in blood, urine, spinal fluid, skin temperature, muscle tonus reflexes, and heart action. The effects of various pharmacologic and physical agents were also determined.

The data derived from the Nazi experiments on human beings indicated that death from cooling is primarily a cardiac death, and that the hitherto puzzling phenomenon of post-rescue collapse and death was the result of the so-called after-drop in temperature which occurred when the victims were removed from cold water. The most effective method of resuscitation in such cases was immersion in hot water to 45°C, which prevented this lethal after-drop and warmed the individual quickly. It was also determined that the commonly used stimulants had no obvious beneficial effect and that alcohol, contrary to common belief, actually hastened cooling, but there were indications of a possible protective action from alcohol on the heart.

It is hoped that additional valuable data will be uncovered as the result of a thorough search of existing captured documents that have not yet been reviewed and evaluated in the light of our present knowledge, and from interviewing medical personnel now known to have personal knowledge of this type of experimentation. Undoubtedly more lives can be saved by this information than were originally sacrificed to obtain it.

After the War, independently and without the benefit of detailed knowledge of the wartime experiments on human beings by the Nazis, Swan, Virtue, and others[10, 11] at the University of Colorado School of Medicine in Denver, as the result of biochemical research, developed a practical technic of direct surgery of the human heart with hypothermia. Swan's method has been used satisfactorily by others, including our own group, and it is this technic that we shall describe.

METHOD

The patient is anesthetized in the usual fashion after which an endotracheal tube is inserted and connected to a closed anesthesia system to permit complete control of respiration by the anesthesiologist. The electrocardiographic electrodes are attached to the extremities, and an oscillograph is plugged into the electrocardiograph. The bulb of a regular commercial deep-freeze thermometer is inserted into the rectum. The patient is then immersed in a tub of ice water at from 2° to 12°C with only the head and neck protruding. From this moment on the anesthesiologist produces controlled hyperventilation to prevent acidosis and a change in the blood potassium level, and the cardiologist watches the electrocardiogram for the appearance of arrhythmias or cardiac arrest. A surgeon stands by completely prepared immediately to open the chest and institute appropriate treatment in the event of ventricular fibrillation or cardiac arrest.

When the temperature sinks to 30°C (86°F) the patient is lifted out of the ice water onto the operating table and placed on a rubber mattress through which water of controlled temperature is circulated. Ordinarily there is an after-drop of approximately 4°C before the rectal temperature stabilizes at about 27°C (80.6°F), which is considered the optimum for surgery. The heart rate slows to about 40 a minute, and the anesthesiologist maintains the respiratory rate between 40 and 60 a minute. The patient receives only 100 per cent oxygen, since anesthesia from the cold alone is adequate at this level.

The surgeon then makes a bilateral transverse sternal intercostal incision in the fourth interspace, since it is essential that all sides of the heart, the venae cavae, the ascending aorta, the pulmonary artery, and the lung roots be reached. Inflow of blood into the heart is stopped by occluding the venae cavae, and about a minute is allowed for the heart to empty itself and the pulmonary circuit as completely as possible. A non-crushing clamp is placed across the base of the pulmonary artery and aorta in a position deliberately to occlude the orifices of the coronary arteries. The slowly beating heart is then opened to allow the residual blood to escape and air to enter. The operative procedure is performed within a maximum time limit of 15 minutes. Just before the incision in the heart is closed, the chest cavity is rapidly flooded with Ringer's solution until the entire heart is submerged. As the heart beats, the air escapes through the incision, leaving its chambers filled with the solution. A second non-crushing clamp is then applied to the cardiotomy incision closing the heart. The clamp across the pulmonary artery, aorta, and coronary orifices is now removed. The superior vena cava is released and blood flow is allowed to resume. After 30 to 60 seconds, when the heart is observed to resume its work load, the inferior vena cava is released and total circulation through the heart is restored. The cardiotomy wound is closed and the chest wall sutured in the usual fashion.

The patient is then lifted from the operating table and immersed in a tub of hot water at 45°C. The rectal temperature slowly rises to 35°C (95°F), at which point the patient is taken from the tub and returned to his bed.

Report of Cases

Case 1. J. C., an 8-year-old boy with known cyanotic congenital heart disease, was first seen in the Cardiac Clinic of Children's Hospital on July 27, 1953. A diagnosis of tetralogy of Fallot was established and cardiac surgery recommended. On March 14, 1954 hypothermia was induced, and when the rectal temperature was 27°C (80.6° F) a transverse sternum-splitting thoracotomy was performed. The temperature was maintained at this level as the circulation was totally occluded for 6 minutes, 10 seconds, while the right ventricle was opened and an infundibular membrane excised under direct vision. He was returned to his bed 7 hours after the start of anesthesia with normal temperature and when he had reacted sufficiently to talk to his mother. During the immediate postoperative recovery period a monoplegia with particular weakness of the right hand was noted. This has responded well to physiotherapy. There has been marked improvement in his ability to exercise with much less cyanosis and a 5-pound weight gain in the first 3 months after surgery.

Case 2. Y. C., a 4-month-old girl, was admitted to the Medical Service of Children's Hospital on May 1, 1954 because of an episode of syncope and cyanosis. Examination revealed delayed development, moderately severe generalized cyanosis, a grade 2, short, rough systolic murmur along the upper left sternum, a distinct, pulmonary second sound but without splitting, and easily palpable femoral pulsations. X-ray, fluoroscopic, and electrocardiographic examinations showed moderate enlargement with hypertrophy of the right ventricle, greatly diminished pulmonary vascularity, and scant evidence of the pulmonary artery or its main branches. A diagnosis of tetralogy of Fallot with severe pulmonary stenosis was made, and in view of the seriousness of the child's status early operation under hypothermia was recommended.

On April 4, 1954 anesthesia was inducted with nitrous oxide and ether and an intratracheal tube inserted for closed anesthesia. The child was immersed in ice water and within 1 hour the rectal temperature had fallen to 30° C (86° F). At the time of the initial skin incision the rectal temperature was 26.8° C. After operative exposure was complete it was evident that the patient had a small main pulmonary artery which ended blindly in the wall of the right ventricle. Under direct vision the right ventricle was opened and a cataract knife was introduced from the right ventricle through a 5 mm. thick ventricular wall into the lumen of the pulmonary artery. This incision was enlarged by the use of a small scissors. As the ventricular incision was closed unavoidable anesthesia difficulty developed, which shortly resulted in the patient's death on the operating table.

Autopsy revealed a large hypertrophied right ventricle, a very small thick-walled left ventricle, a high interventricular septal defect, dextroposition of the aorta, and a clean surgical opening from the right ventricle into the pulmonary artery, just at the site of the anterior commissure of the pulmonary valve.

Case 3. B. M., a 4-year-old girl with a known congenital cardiac defect, was first seen in the Cardiac Clinic at Children's Hospital during October, 1953. A tentative diagnosis of an auricular septal defect was made with a recommendation for cardiac catheterization. On December 20, 1953 she was admitted to the hospital in congestive heart failure with considerable dyspnea, a large liver, and anasarca. She responded rapidly to treatment, with disappearance of all edema and liver enlargement. Cardiac catheterization was carried out in the Cardiac Laboratory on February 16, 1954, revealing increased pressure on the right auricle and right ventricle and a 3-volume rise in the oxygen content of the blood in the right auricle as compared to the blood samples taken from the venae cavae. During this procedure the catheter was passed through a defect in the auricular septum into the left auricle.

On May 11, 1954 hypothermia was induced as previously described, and the right auricle was opened. A 5 cm. elliptical opening crossed by trabeculations was found in the auricular septum. This was closed by 6 sutures. The heart and circulation were occluded for 7 minutes and 40 seconds, the right auricle being open 6 minutes and 40 seconds of this period. Her recovery was completely uneventful, and her activity pattern subsequent to discharge from the hospital has been that of a normal child of her age.

Case 4. R. H., one of identical twins, was first seen by one of us (B.J.W.) at the age of 3 weeks. He had a weak cry, was feeble compared to his normal twin, and became cyanotic with hard crying. There were good pulsations in both femoral arteries. There was a slightly loud, high-pitched systolic murmur along the upper left sternum. The pulmonary second sound was distinct but not definitely split. X-ray, fluoroscopic, and electrocardiographic examinations suggested dextrocardia of the non-mirror image type, but with added unusual features concerning the heart chambers and great vessels which could not be clearly explained. It was evident at this early date, however, that there was a marked reduction in pulmonary circulation.

Occasional observations over the next 5 years revealed increasing generalized cyanosis, an exercise tolerance well below that of the normal twin, and occasional squatting. The heart size and shape and electrocardiographic features did not change materially. Cardiac catheterization was performed on October 20, 1953 but was incomplete and unsatisfactory. On May 27, 1954 an angiocardiogram revealed a right aorta which filled from the right ventricle and descended on the right of the spine. There was poor filling of the pulmonary artery and its branches.

On June 8, 1954, thoracotomy was performed under hypothermia. At the time of the initial skin incision the rectal temperature was 26.5° C (79.7° F). Complete exposure of the heart and major blood vessels revealed unusually small, non-pulsating pulmonary arteries. These vessels were well filled with blood but had no evident communication with either ventricle. The pulmonary arterial blood apparently came from an extensive collateral bronchial artery circulation. It was thought that no surgical procedure could be carried out at this time that would aid the patient, and the chest was closed. The postoperative course was not remarkable. The patient has since returned to school apparently unchanged from his preoperative state.

Summary

1. Several technics have been developed for performing closed or indirect intracardiac surgery with the surgeon being guided only by the feel of the instrument or the finger. Although effective for some cardiac defects, these procedures are not satisfactory for other.

2. The necessity for maintaining adequate metabolism during operative maneuvers inside the heart under direct vision with a bloodless field has resulted in investigations in three major fields concerning (1) the use of an extracorporeal heart or heart-lung mechanism, (2) combined mechanical pump-normal human-patient hookup of Lillehei, and (3) general hypothermia.

3. The technical difficulties and risk associated with the use of the extracorporeal heart are great and have not yet been satisfactorily overcome.

4. Extensive experimental work on animals and humans during the last century and a half and recent clinical evidence indicate that general hypothermia permits direct surgery of the heart without excessive risk.

5. A satisfactory and proven technic for performing intracardiac surgery under direct vision in a bloodless field by the use of hypothermia is described.

6. The case reports of 4 patients with congenital heart disease operated upon during hypothermia are presented.

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RADIOISOTOPES IN HEART DISEASE*

B. J. DUFFY, JR., M.D.

Director, Isotope Laboratory, Georgetown University Hospital

SINCE the first controlled nuclear reaction ten years ago there have been an increasing number and amount of radioisotopes available for medical research, diagnosis and treatment. Their unique precision of measurement makes radioactive tracer technics of particular value to clinical research in heart disease. The contributions of radioisotopes to the understanding and management of cardiac disability to be discussed here include: detection and treatment of the thyrocardiac; reduction of thyroid function in the patient with severe cardiac failure and/or angina; study of the flow of blood between the chambers of the heart (radiocardiography); measurement of cardiac output; and, finally, measurement of blood, plasma and body fluid (extracellular space, body water) volumes.

In this presentation of the use of isotopes in heart disease, an effort will be made to measure practicality and routine clinical experience against the occupational enthusiasm which tends to overcome any physician who works in this new and exciting field.

This is in no way a complete review or survey but rather a preliminary discussion of some isotope procedures of particular interest in the study of cardiac cases at Georgetown University Hospital.

THYROID HEART DISEASE

The uptake of radioiodine (I^{131}) by the thyroid and the chemical determination of the serum protein-bound iodine (PBI) provide the clinician with accurate, objective tests of thyroid function.[1] The I^{131} test, more easily accomplished than the PBI, is becoming widely available.

The I^{131} test is particularly useful in the estimation of thyroid function in the cardiac patient when the value of the BMR is negligible. In the cardiac with increased thyroid activity, evidence of systemic thyrotoxicosis may be absent. Bortin[2] used the I^{131} uptake as a screening test for possible thyrotoxicosis in chronic auricular fibrillation and found the surprising incidence of 14.5 per cent (8 out of 55 patients) with increased I^{131} uptake in patients who otherwise did not show evidence of hyperthyroidism. With I^{131} therapy 6 of the 7 patients treated reverted to normal rhythm.

Although I have not found an incidence of more than 2 to 3 per cent of hidden thyrocardiac disease, it is my belief that any patient with refractory fibrillation or failure should have an I^{131} test.†

Evidence of any increased uptake of I^{131}, however minimal, in such a cardiac patient is an indication for a therapeutic trial of radioiodine. There is no risk in treatment if the dose is carefully controlled to guard against any acute aggravation of symptoms due to destruction of thyroid tissue and discharge of preformed thyroid hormone.

While treatment of a toxic thyroid will not repair an otherwise damaged myocardium, there is no evidence that thyroid heart disease per se is not reversible at any stage of its course.

The use of radioiodine in the diagnosis and treatment of the thyrocardiac is completely accepted, easily accomplished, and uniformly rewarding.

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* Presented before the First Interstate Scientific Assembly of the Medical Society of the District of Columbia and the Medical Society of Virginia in Washington, D. C., November 1, 1954.

† A simple and frequently neglected clinical test which may give a clue as to a possible associated hyperthyroidism with heart disease is the circulation time, which is shortened in thyrocardiac disease.

Thyroid Function in the Euthyroid Cardiac

Radioiodine is sometimes used to reduce thyroid function in the euthyroid cardiac with "intractable" angina pectoris and/or congestive heart failure. This form of treatment is still not completely accepted, is frequently difficult of accomplishment, and may result in making some patients worse because of myxedema. Blumgart,[3] who has pioneered in this treatment, has recently summarized the results from a number of clinics and found 75 per cent of the angina patients and 60 per cent of those with congestive heart failure benefited by medical thyroidectomy.

We[4] have a small series which would indicate similar results with angina but less benefit in the congestive failure patients.

Results in I^{131} Treated Cardiacs

	PATIENTS	GOOD	POOR	RECORDS LOST
Angina	27	18	6	3
Congestive heart failure	14	3	8	3
Hypertension (renal)	2	1	1	
Controls (angina)	2	1	1	

It is our belief that real benefit may obtain with the reduction of thyroid function in some patients with incapacitating angina and/or congestive failure. Contraindications to the use of I^{131} in such patients include hypertension,* renal or hepatic insufficiency, or evidence of an already present hypometabolism (reduced I^{131} uptake and serum iodine levels) prior to therapy.

A preliminary trial with an antithyroid drug is given as a clinical test and to enhance I^{131} uptake subsequent to the stopping of the drug and prior to the administration of the radioiodine.[6] It still requires multiple doses of I^{131} and from 3 to 6 months to do a radiothyroidectomy in the euthyroid cardiac, although definite clinical effects may be noted as early as 1 month after treatment with radioiodine.

Some of the mechanisms which might explain the possible beneficial effects seen in radiothyroidectomy for angina and/or heart failure are: decreased cardiac output, more efficient utilization of oxygen by the myocardium, decreased sensitivity of the cardiovascular system to adrenergic stimuli, and the increased emotional stability which sometimes results from this type of treatment. We are attempting a control group in the treatment of angina with sham isotope procedure to give some measure of the admitted role of suggestion in the treatment of angina pectoris.

It is possible to advance the following tentative conclusions. The use of I^{131} in the treatment of the euthyroid cardiac must be classed as experimental treatment. With careful case selection it is a worthwhile undertaking in experienced hands. Besides the myxedema, which does not seem to have increased the arteriosclerosis,[7] there are no serious complications. An interesting and reversible treatment complication is the frequent exacerbation of any coëxistent rheumatoid arthritis with the development of thyroid insufficiency.

Radiocardiography and Cardiac Output

The technical advances in scintillation counting have resulted in improvements in the determination of the flow of blood between the chambers of the heart (radiocardiography) and the rate of cardiac output.

The method, in both instances, is essentially the same—the perception of a "slug" of radioactivity as it makes a single traverse of the circulation. With the injection of the radioisotope, a shielded, directional counter placed over the precordium records the flow of blood in the heart. A characteristic pattern is obtained. The accompanying illustrations, from the work of Prinzmetal,[8] indicate the different tracings obtained in patients with normal cardiac function (figure 1—top tracing), aortic insufficiency (figure 1—bottom tracing), and patent ductus arteriosus before and after surgical ligation (figure 2—A and B).

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* Hypertension is a relative contraindication in that, if severe, relapsing essential hypertension is present, it would not seem reasonable to embark on a long-range plan of therapy. There may well be some beneficial aspects of thyroidectomy in selected cases of hypertension of renal origin as reported experimentally by Braun-Menendez.[5]

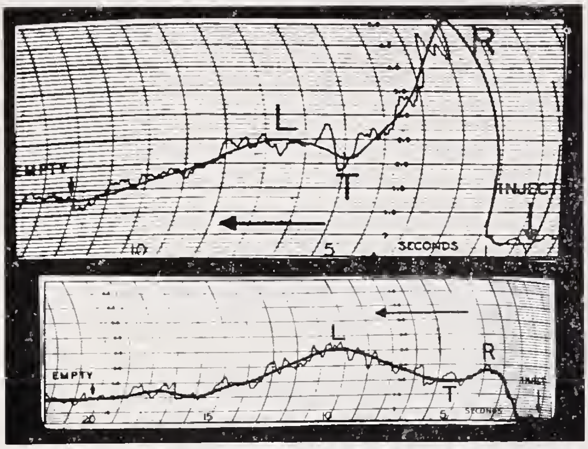

Fig. 1. Normal radiocardiogram (top); aortic insufficiency (bottom).

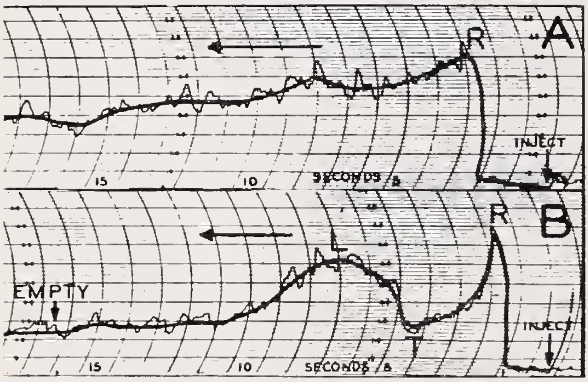

Fig. 2. Radiocardiogram on patient with patent ductus arteriosus (A) before and (B) after surgical ligation.

The cardiac output is determined by obtaining a similar curve from arterial blood and the application of a mathematical formula for calculation of the stroke volume of the heart. Some recent work indicates that this calculation may be possible without arterial samples.

These tests are obviously not routine clinical procedures. The problem of instrumentation is one of accurate detection of a short peak of radioactivity prior to diffusion of the isotope. The diagnostic use of these technics, while promising, remains in the experimental stage although an experienced worker has recently compared their possible future utility to that of the electrocardiogram in cardiac diagnosis.[9]

Blood Volume and Body Spaces

The volume of circulating blood is usually increased in congestive heart failure. Although normal values have been reported in patients in cardiac decompensation, correction of the result for body hematocrit may demonstrate an otherwise obscure hypervolemia.[10]

We[11] have studied the extracellular space (figure 3) in normal patients, hypertensives, and patients with mild congestive failure. Utilizing radiosulfate (S^{35}) in a dilution technic, we have found an increase in extracellular space in the patients which, in some instances, measured 6 liters in the absence of palpable edema.

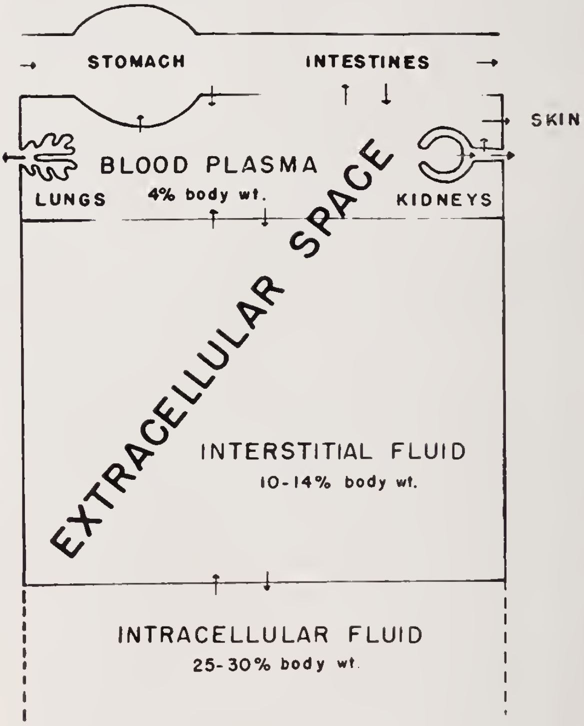

Fig. 3. Relationship of extracellular space to body fluids.

While the main use of the radiosulfate space is in research, I believe that it will have increasing clinical use since it provides a measure of the excess interstitial fluid in cardiac failure, which fluid may not otherwise be discernible except by diuresis.

In the complex, unsettled problem of cardiac edema the measurements of blood volume, extracellular space, and total body water will afford a maximum of information on the fluid aspects of dropsy. Some normal values of body fluids, obtained by various isotope technics, are presented in table 1.

TABLE 1

Some Recorded Values for Blood Volume and Body Fluids in Normal Patients as Determined with Isotope Dilution Technics

Body fluids	
Red blood cell volume (Cr^{51}, P^{32})	28 ± 3 c.c./kg.
Plasma volume (Cr^{51}, I^{131})	39 ± 6 c.c./kg.
Total blood volume	67 ± 9 c.c./kg.

	LITERS	% BODY WT.
Extracellular fluid (S^{35})	11 ± 2	16 ± 3
Total body water (D_2O, H_3O)	44 ± 6	62 ± 6

Body water may be measured isotopically by determining the relative concentration of the injected isotopes of hydrogen, deuterium (D_2O), or tritium (H_3O) after a period of equilibration. Because of technical difficulties in the measurement of these isotopes and unknown factors in the interpretation of results, we must await a new tracer, such as I^{131}-tagged antipyrine, if we are to extend clinical observations in this area.

It is not possible at this time to properly evaluate the changes in body fluids in disease states due to our inability to determine body fat. If blood volumes, extracellular space, and body water could be related to lean body mass it is reasonable to assume that the significance of these fluid changes in disease states could be more clearly defined. Although work is progressing on a method to determine body fat,[12] there is no indication of its early availability for this critical determination.

SUMMARY

Radioiodine is effective in thyroid diagnosis and treatment in patients with thyrocardiac disease; I^{131} thyroidectomy is of benefit to a limited but a real group of patients without hyperthyroidism who have incapacitating angina and/or congestive heart failure.

New isotope technics are available for the study of abnormal blood flow between the chambers of the heart (radiocardiography) and for possibly more precise measurement of cardiac output.

The extracellular space measurement, as determined with radiosulfate (S^{35}), is a new procedure which, with the other isotope dilution technics, gives more accurate information on fluid balance in cardiac disease.

Radioisotopes have practical clinical value in the diagnosis and treatment of thyroid heart disease and certain abnormalities of blood flow and fluid retention.

With a rich variety of applications of atomic energy yet to be explored in human disease, the administration of isotopes should be most judicious so as to obtain maximum information with minimum cumulative radiation to patient or physician.

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MANAGEMENT OF THE NAUSEA AND VOMITING OF UREMIA

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MODERN understanding of the metabolic problems involved in chronic renal disease has extended the life expectancy of patients with such disease. It is no longer unusual for patients, even in relatively advanced stages of uremia, to be managed successfully for months or years.

In the day-to-day treatment of uremic patients there is perhaps no more harassing situation for both the patient and the doctor than persistent nausea and vomiting. For the patient this complication often produces his first conscious awareness of the serious nature of his illness. Continuation of the vomiting inevitably leads to dehydration, severe electrolyte abnormalities, weight loss, and further depletion of body tissue. It is literally a devitalizing complication. For the physician, who is attempting to maintain a forced diuresis, to regulate the patient's electrolyte and acid-base balance, and to minimize the mobilization of calories from body protein, an episode of severe and protracted vomiting makes his calculations meaningless and his best efforts futile.

The gastrointestinal symptoms of patients with chronic renal disease have many causes. Among the more common in our experience have been (1) uremic gastritis,[1] (2) duodenal ulcer, and (3) intolerance to medication, especially antibiotics and digitalis, which, in turn, may very well be due to exaggeration of a normal drug effect superimposed on a subclinical uremic gastritis, higher than expected blood levels due to impaired excretion, or poor gastric absorption, (4) prolonged singultus, (5) various digestive complaints such as bloating, heartburn, etc., (6) acute gastric dilatation, (7) severe acidosis, (8) attempts at forcing fluid or food, and (9) emotional reasons such as suppressed anxiety by the patient over his state of health, etc.

In meeting this problem one must frequently of necessity resort to a variety of treatments, always bearing in mind the individual patient and his specific problems. The many therapeutic procedures recommended have included: (1) cessation of everything by mouth except ice chips, weak tea, or ginger ale, (2) gastric intubation, the administration of (3) belladonna derivatives, (4) calcium, (5) Dramamine, (6) sedatives, and (7) Basaljel or Amphogel (to block phosphorus absorption), and (8) vigorous therapy of acidosis.

Perhaps the single most valuable addition to the above measures has been the recent introduction of chlorpromazine,* which may be used singly or in conjunction with some of the other measures. Chlorpromazine hydrochloride is a chlorinated phenothiazine, first synthesized in the laboratories of Rhone-Poulenc in France and extensively studied in Europe and the

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* Thorazine, kindly supplied by Smith, Kline and French Laboratories, Philadelphia, Pa.

United States. Several recent reports have attested to the diversity of pharmacologic properties and clinical uses of this new drug. In dogs it has prevented the vomiting of apomorphine and of motion sickness (but not that produced by lanatoside C) and has been reported on favorably in a number of human clinical situations such as the vomiting of pregnancy, radiation sickness, terminal cancer, and uremia. Friend and Cummins[2] studied 70 patients with nausea and vomiting from various causes with gratifying results, which have been confirmed by others.[3, 4]

METHODS AND RESULTS

The Renal Service of Georgetown University Hospital has had the opportunity of studying the effects of chlorpromazine on the nausea and vomiting of 15 patients with chronic renal disease or uremia secondary to prolonged acute renal insufficiency. Many of these patients had been previously treated by one or another of the measures noted above. Because of inability of the patients to retain anything by mouth, it was usually necessary to administer the first dose of the drug by deep intramuscular injection. Subsequent control was then attempted by oral maintenance doses. In this study the intramuscular doses varied between 25 and 100 mg. and usually relieved symptoms within 1 to 2 hours after administration. The oral maintenance doses varied from 10 to 50 mg. every 4 to 6 hours. In all 15 cases nausea and vomiting were substantially reduced or controlled. With the administration of placebos, nausea and vomiting returned in 6 cases, which then subsided after reinstitution of the drug.

Other effects noted were a tendency toward euphoria and an impression by the patient of increased strength and well-being. The ability to resume oral feeding undoubtedly contributed to this latter effect. The use of chlorpromazine is illustrated by the following cases.

Case 1. The patient was a 13-year-old white male admitted with abdominal pain and vomiting of 1 day's duration. He was known to have diabetes since the age of 8 years, controlled with 34 units of insulin daily. On the morning of admission he developed epigastric pain after vomiting his breakfast. He remained nauseated the entire day. The pain was mostly on the right side but not well localized.

Physical examination on admission revealed a well-developed, well-nourished boy who was in distress due to abdominal pain. The temperature was 99.4° F, the pulse rate 120, and the blood pressure 120/80. The abdomen was slightly rigid, especially in the right lower quadrant. There was no tenderness on deep palpation, but there was moderate rebound tenderness throughout the abdomen with normal peristalsis. There were discrete, small, movable, non-tender nodes in the inguinal, axillary and posterior cervical regions. A strong odor of acetone was present on his breath.

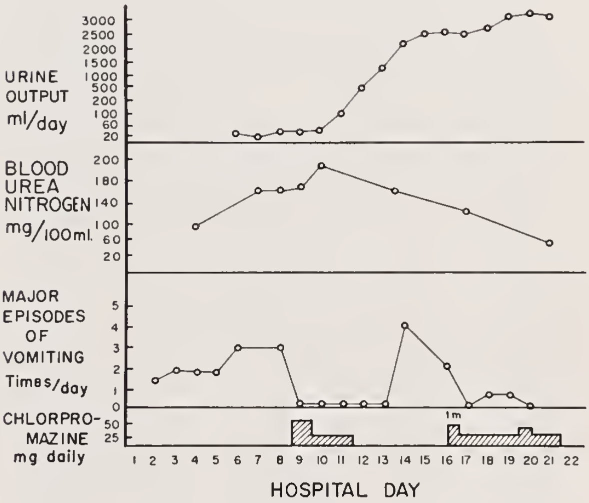

FIG. 1. Chlorpromazine in uremia

The initial hemoglobin was 14 Gm., the red blood cell count 4,300,000, and the white blood cell count 15,250, with 86 per cent polymorphonuclears, 6 per cent band forms, 3 per cent mononuclear cells, and 1 per cent lymphocytes. He continued to show a leukocytosis ranging up to 23,000 during his hospital stay. The urine showed a pH of 4, 4 plus albumin, 3 plus sugar, 1 plus acetone, and contained many red blood cells, some white blood cells (10 to 15), and a number of cellular casts including classical red blood cell casts. The blood sugar was in excess of 450 mg. per 100 ml. of blood and an initial blood urea nitrogen was 34 mg., the CO_2 combining power was 21 volumes per cent, and the blood chloride was 100 mEq./l. The serum potassium was 4.4, the sodium 135, and the cholesterol 216 mg. per 100 ml. of blood.

The patient rapidly developed severe oliguria with urine outputs diminishing to 35 ml. per day. There was persistent vomiting aggravated by attempts at oral intake; this was especially true with antibiotics. He required chlorpromazine therapy during the intervals between the frequent attacks of severe nausea and vomiting. The course and treatment are summarized in figure 1. There was a gradual increase in the azotemia despite the increase in urinary output, but the patient eventually had sufficient return of renal function to reduce the azotemia and uremia to normal following a typical diuretic phase.

The clinical diagnoses were: (1) diabetes mellitus,(2) diabetic acidosis, (3) acute glomerulonephritis, (4) acute renal insufficiency secondary to the combined glomerulonephritis and acidosis, and (5) uremic syndrome secondary to acute renal insufficiency.

Case 2. The patient was a 22-year-old white man with chronic glomerulonephritis of at least 10 years' duration who was hospitalized because of increasing azotemia and anemia. On admission to the hospital he appeared lethargic, had a severe headache, and had continuous nausea and vomiting and abdominal pain. The change in his clinical course had been preceded by an upper respiratory infection. Positive physical findings included a blood pressure of 160/100, marked anemia, and grade III retinopathy. Laboratory determinations revealed a hematocrit of 20, bone marrow consistent with the anemia of uremia, fixed urinary specific gravity, 3 plus albuminuria, and quantitative urine albumin output of 2.3 Gm. in 24 hours. The urinary sediment revealed red blood cell casts, numerous free red blood cells, doubly refractile fat bodies, and granular, hyaline and broad renal failure casts. Blood chemistry examinations showed a blood urea nitrogen of 138 mg., CO_2 combining power of 15 volumes per cent, chloride of 110 mEq./l., calcium of 8.8 mg., phosphate of 4.5 mg., uric acid of 12.6 mg., cholesterol of 173 mg., serum albumin of 4.1 Gm., and globulin of 2.5 Gm.

The clinical diagnosis was chronic glomerulonephritis with acute exacerbation.

Because of persistent nausea and vomiting the patient was unable to retain sufficient fluid or food to meet his daily caloric requirements and thus prevent the breakdown of body tissue. With dehydration his urinary output diminished to 800 c.c. per 24 hours and his azotemia and acidosis increased. Chlorpromazine was given in dosage of 50 mg. intramuscularly followed by a maintenance dose of 25 mg. every 6 hours. The nausea and vomiting ceased in approximately 1 hour after the initial dose. The patient was thereafter able to take food orally sufficient to meet his caloric requirement and fluid to increase his urinary output to over 2,500 c.c. per 24 hours. On forced diuresis the symptoms cleared, the blood urea nitrogen progressively decreased to 100 mg., and the patient was discharged improved.

COMMENT

These cases illustrate some of the problems which arise in the management of severe chronic renal disease which with acute exacerbations may become involved in a vicious circle of nausea, vomiting, dehydration, increasing azotemia and acidosis, perpetuating the gastric symptoms. With better control of uremic vomiting it may be possible to restore urine outputs sufficiently to reduce the azotemia and improve the clinical state of patients with chronic renal disease thought to be terminal.

The only adverse side-effects noted from the administration of chlorpromazine were excessive somnolence, marked sensitivity to the depressant activity of barbiturates, and mild euphoria. No unexpected adverse effects on renal function were noted. However, the drug was administered for only short periods of time and no critical evaluation was possible of the administration of chlorpromazine continuously for long periods of time. Meyer[4] studied renal hemodynamics in dogs after the administration of the drug and could demonstrate no significant alteration in the glomerular filtration rate or renal blood flow. When administered rapidly by the intravenous route chlorpromazine may produce ganglionic blockade and severe hypotension. Under such circumstances renal blood flow may be depressed along with the hydrostatic pressure. It is presumed that the intravenous method of administration would be strongly contraindicated in severe renal disease. It is advisable to begin with lower intramuscular doses in patients with truly critical levels of renal function. In occasional terminal patients with hemorrhagic uremic gastritis Thorazine has lost its effectiveness after initial good results. In such patients continued administration is probably inadvisable.

(Continued on page 158)

INDICATIONS FOR TONSILLECTOMY AND ADENOIDECTOMY*

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THE inclusion of this subject in today's panel is justified on the basis of the large number of tonsillectomies and adenotonsillectomies which are performed every day. The opportunities for abuse are obvious, either through the improper evaluation of the indications for surgery or by intentional disregard of the patient's inalienable rights to honest medicine on the part of his physician. I wish to state at the outset that in my considered opinion this factor is negligible and need not concern us in today's discussion. What then are the factors which cause honest difference of opinion and leave room for study and discussion? Everyone will admit that in the light of present-day thought there is no excuse for the old concept of practically universal adenotonsillectomies in children. There must be some definite indication for the performance of this surgery, arrived at after a careful, individualized appraisal. I think it is equally wrong to go to the opposite extreme and consider all adenotonsillectomies either unnecessary or harmful. Let us review the important aspects of this problem. In the first place, what are the functions of the tonsils and adenoids? The weight of opinion is that there are two closely related functions:

1. The tonsils and adenoids constitute a barrier to respiratory infection in infancy and childhood.
2. This barrier is a site for the development of antibodies which will protect the child in future years.

Boies[1] argues for the validity of these functions in spite of the fact that they are so frequently lost in childhood as a result of infection and hypertrophy; he thinks that their purpose could still have been fulfilled in the age period when the need may be the greatest. Furthermore, if these functions were not primarily related to childhood, the normal atrophy of the tonsils and adenoids seen in adults could hardly be expected to occur. Granting, therefore, that there is a function of protection in childhood, we must have definite indications for adenotonsillectomy.

INDICATIONS FOR ADENOTONSILLECTOMY IN CHILDREN

1. *Simple hypertrophy.* Hypertrophy may be so great at times that respiration and deglutition are impaired, with resulting lethargy, loss of appetite, restless sleep, and general underdevelopment. The severely affected patients should have adenotonsillectomy performed. Mild or moderate hypertrophy if not associated with other complications is not an adequate indication for surgery.

2. *Otitis media and deafness.* Recurring otitis media, either secretory or purulent, is a strong indication for adenotonsillectomy or adenoidectomy. Improper ventilation and drainage of the middle ear because of a blocked eustachian tube is the usual cause of recurring otitis. Hypertrophy of the adenoids leads to a pooling of purulent secretions in the nasopharynx which find access to the middle ear; in these children every respiratory infection is apt to cause an ear infection, with impairment of hearing, at times severe enough to be a great handicap. Some of

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* Presented as part of a panel discussion before the First Interstate Scientific Assembly of the Medical Society of the District of Columbia and the Medical Society of Virginia in Washington, D. C., November 1, 1954.

the most gratifying results in adenotonsillectomy are to be found in these cases. In certain children adenoidectomy alone will be all that is necessary; I believe that if the child is very young we can improve nasopharyngeal function and restore normal hearing without depriving him of the protective function of the tonsils. If the child has other indications to suggest the need for removing the tonsils at the same time, then most certainly an adenotonsillectomy should be done and the necessity avoided of later performing a second operation for tonsillectomy.

3. *Recurring tonsillitis.* Repeated attacks of acute follicular tonsillitis with persistent cervical node enlargement and any other systemic sequelae constitute a definite indication for adenotonsillectomy. I do not think, on the other hand, that the recurrence of colds without true tonsillar infection is a valid indication for adenotonsillectomy. Too many disappointments have occurred among children who had an adenotonsillectomy purely in an effort to reduce the number of colds.

4. *Focal infection.* Chronic infection of the tonsils in older children is usually manifested by the presence of pus and detritus in the crypts, nagging residual sore throats after respiratory infections, chronically enlarged cervical nodes, loss of appetite, and irritability. These symptoms are certainly suggestive of a chronic focus in the adenoids and tonsils; when conservative medical management fails to bring about improvement they should be removed. Most certainly children who are diphtheria carriers should have an adenotonsillectomy. Surgery is also indicated following retropharyngeal or peritonsillar abscess. There is much difference of opinion regarding the role of focal infection in children with rheumatic heart disease or with infectious asthma. McKenzie,[2] for example, states that he has never seen a child with an illness which might be due to a septic focus such as chronic nephritis or rheumatism cured by tonsillectomy. Bernstein,[3] on the other hand, advises tonsil- or adenotonsillectomy if attacks of rheumatic fever or nephritis have been preceded by an attack of acute tonsillitis; and Fitz-Hugh[4] would seem to agree with him when he advises adenotonsillectomy in systemic diseases such as rheumatic fever, nephritis or renal sepsis, depending of course upon a careful evaluation of each individual case.

5. *Chronic sinusitis.* Another important indication for either adenoidectomy or adenotonsillectomy is recurring or chronic infection of the maxillary and ethmoid sinuses. It has been my experience that these infections will clear up much faster if the nasopharynx is well aerated and any possible infection of the tonsils is removed. The treatment of the sinusitis becomes easier and is more successful following adenotonsillectomy. We must remember when treating sinusitis in children, however, to make a differential diagnosis of allergy; in the allergic child the management is entirely different. So much respiratory disease in children is of an allergic nature that this factor must be eternally borne in mind in appraising each youngster for treatment or surgery. Frequently the control of allergy is enough to cure what has been an apparent chronic sinus infection. Only when allergic management fails to improve obvious infection is one justified in recommending adenotonsillectomy.

Age for Adenotonsillectomy

The question is often asked as to the optimum age for adenotonsillectomy in children. If we are correct in assuming that the lymphoid tissues in Waldeyer's ring have a definite function of protection against infection, we would do well to postpone or avoid adenotonsillectomy whenever possible until the child's first years have passed. As a flexible rule I would be inclined to say that adenotonsillectomy should not be performed, if possible, prior to the age of 4 or 5 years. However, if the indications are compelling enough we must disregard the child's age completely. In the very young the most common indications for surgery are related to improving nasopharyngeal ventilation; therefore, adenoidectomy is the procedure of choice instead of complete adenotonsillectomy. It is wise to explain fully to the parent that one is assuming a small risk in leaving possibly infected tonsils, but at the same time one is weighing that risk against perhaps a greater one of removing both at a very young age. The question of regrowth of tonsil and adenoid tissue has been partially attributed to the removal of the adenoids or tonsils at too early an age; although this may be so in some cases, I believe that the greatest single reason for regrowth of adenoid or tonsil tissue is inadequate removal the first time. Every effort should be made to remove the tonsil cleanly down to the base of the tongue and to remove the adenoids with as much direct visualization as possible. It is true that allergic children, particularly, seem to have a propensity to thwart our surgical intervention by the hypertrophy of small remnants of adenoid or tonsil tissue and by the hypertrophy of the discrete pharyngeal lymph follicles and lateral bands of Waldeyer's ring as well as by the eventual hypertrophy of the lingual tonsil.

ADENOTONSILLECTOMIES AND POLIOMYELITIS

We come now to the discussion of adenotonsillectomies and their relation to poliomyelitis. There is considerable difference of opinion regarding the cause and effect relationship between adenotonsillectomy and poliomyelitis. Top,[5] discussing the problem of poliomyelitis and its relation to tonsillectomies, points out that poliomyelitis is a highly infectious disease and that most persons have had a subclinical infection by the time they reach adulthood in the ratio of almost 100 to 1 as compared to the clinical cases. In Top's study of a 10-year period at the Herman-Keefer Hospital he found that of 1,947 patients comprising 85 per cent of the poliomyelitis patients of Detroit 1,011 gave a history of having had a tonsillectomy prior to poliomyelitis. This number comprised 51.9 per cent of the total cases, which is higher than the tonsillectomy rate of the general population. He stated, however, that even though one were to grant that the tonsillectomy rate of the general population was an average of 50 per cent one could not fully discount the markedly high proportion of the bulbar form (85 per cent) and the spinal bulbar form (68 per cent) in which tonsils had been removed at some time in life. In contrast to the high percentage of bulbar and spinal bulbar types of the disease among tonsillectomized patients, only 45 per cent had a nonparalytic type of the disease, whereas 43 per cent had a spinal type. The author also points out that the death rate among patients who had had tonsillectomy at any time prior to contracting poliomyelitis was twice that of patients who had not had tonsillectomy at any time.

Wilson[6] thinks that one has to weigh the risk of surgery with the development of poliomyelitis later or the risk of leaving infection in an individual. Weinstein,[7] like Top, points out that poliomyelitis in its clinical form appears in only a very small proportion of those who have had the disease. Miller,[8] in a study of cases of poliomyelitis in Los Angeles in the years 1949, 1950, and 1951 found that of a total of 3,601 patients, there were only 20 patients (one half of 1 per cent) who had had a recent adenotonsillectomy or adenoidectomy. The actual incidence was compared with the expected incidence of the disease in patients following adenotonsillectomy, and the statistical analysis revealed that there were no significant differences even during the summer months when the incidence of poliomyelitis was the highest. In a separate study, Miller found that only 30 per cent of 675 poliomyelitis patients had had an adenotonsillectomy at any time in their life. Inasmuch as 1 out of every 3 of the general young population nowadays has had a tonsillectomy and adenoidectomy, this figure would appear to be no more or less than should be expected. He too, however, points out the fact that the bulbar type of poliomyelitis was found to have developed twice as often in the patients who had recently had a tonsillectomy.

On the whole it becomes apparent that the weight of opinion is in favor of deferring adenotonsillectomy during periods of high incidence of poliomyelitis; from the long-term point of view, if statistics should continue to show an increased ratio of poliomyelitis among tonsillectomized children, it becomes particularly important to be critical of our indications for this surgery. We hope, of course, that developments in the prevention of poliomyelitis by active immunization to the disease will so decrease the incidence of this terrible scourge that eventually the fear of it will not militate against the performance of well-indicated adenotonsillectomies.

Tonsillectomy in Adults

I believe it is safe to say that there is much less controversy regarding the indications for tonsillectomy in adults. Although the need for adenoidectomy in adults is rare, it does arise occasionally either by itself or in conjunction with tonsillectomy. There are fewer indications for tonsillectomy in adults than in childhood. Seldom is simple hypertrophy found to be a surgical indication. Otitis media is equally rare. Recurring attacks of tonsillitis, peritonsillar abscess, and low-grade sore throat with or without systemic sequelae are the most common reasons for surgery in adults. Tonsillectomy has to be done occasionally to eliminate the foul breath produced by putrefactive changes in the detritus of the tonsillar crypts. There are differences of opinion regarding the role of the tonsils in focal infection. The conservative approach to this problem requires a careful appraisal of each case. Where no other obvious foci can be found, a tonsillectomy is justified, because in many cases the symptoms of lassitude and muscle or joint pains are relieved or improved.

It was not intended that this presentation should dwell upon certain aspects of the problem such as surgical technics, anesthesia or complications. Even if it were, the time allotted would preclude such discussion.

I should like to close with an observation regarding which there can be no room for controversy. In view of the recognized morbidity and occasional mortality associated with adenotonsillectomies, this surgery should be performed only by those adequately trained to do it well and capable of handling the immediate and the delayed complications.

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CLINICAL DISCUSSION OF PAIN IN THE UPPER URINARY TRACT*

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Washington

MY INTEREST in ureteral pathology was stimulated by the many papers Hunner[1] contributed to this subject. Considerable discussion centered on his many assertions that ureteral stricture was an organized stricture and was omnipresent in women. He was never able to prove his hypothesis by X-ray or pathologic examinations, since the condition undoubtedly was spastic. The discussions at that time, however, focused attention on this disease.

My initial interest in this condition dates back 35 years when patients suffering from this symptom-complex were referred by Drs. J. W. Bird, C. H. Ligon and W. J. Cusack, and several other gynecologic confreres.

I have arbitrarily picked 100 patients with pain in the renal or ureteral areas in whom the intravenous or retrograde pyelograms revealed no definite organic disease of the kidney or ureter. These patients apparently were suffering from idiopathic nephralgia, an imbalance of the autonomic innervation of the urinary tract (Young and Wilson[2]).

Inasmuch as 90 per cent of these patients were women, a typical hypothetical case is that of a woman in her forties, complaining of pain in the costovertebral angle radiating anteriorly. These symptoms had persisted over a period of 3 or 4 years and were generally accentuated during the catamenia. Prior to examination she usually had had a complete physical checkup, including blood tests, urine cultures, and an intravenous urogram. My diagnostic workup included a cystoscopic examination, determination of the ureteral calibre, and retrograde and pyelographic films in an effort to reproduce and connect her pain to the urinary tract. A determination of the emptying time of the pelves of the kidney and ureters was also made.

She was a thin, anxious-appearing individual with an obvious imbalance of her emotional status. The abdomen presented evidence of several "battles" with the scalpel. Tenderness was elicited along the course of the ureter, especially where it crossed the pelvic brim. Passage of blood or stone was not in evidence. There were periods when the patient was unable to carry on her household or other duties.

Other symptoms produced by the imbalance of the autonomic nervous system are pylorospasm, anorexia, regurgitation, precordial pain, palpitation, dyspnea, flatulence, and vague headaches. Associated complications include endocervicitis, pelvic inflammation, cholecystitis, duodenal stasis, and hypertension.

Kimbrough[3] also reports on 100 patients with urinary symptoms examined in his section at Walter Reed General Hospital, 49 per cent of whom were found to have no organic disease of the urinary tract. Ureteral dilation was successful in most instances.

Papers by Keyser,[4] Dodson,[5] Trattner,[6] Hanley,[7] Lapides,[8] and other urologists confirmed my convictions as to the presence of this diagnostically elusive disease. Why did these emotionally unbalanced patients develop this pain syndrome? It possibly represents a situation stress, the sum total of life situations resulting in tension (Karnosh and Quinn[9]). In 1953 Hanley[7] cited the irritable ureter as a cause of ureteral pain and said that it was nearly always found in women of a neurotic type. He further stated that by the time the urologist sees them they have already lost their appendix and probably ovaries and tubes without regression of the ureteral pain. He was quite convinced in some instances that the ureter is the cause of this long-standing pain situated in the iliac fossae. The difficulty has always been to decide when the ureter was at fault and which patients would benefit from an operation. Hanley[7] reported a series of patients with utereral pain in which the ureters showed marked hyperactivity on the electro-ureterogram. Violent contractions were set up by the mere passage of the ureteral catheter. He found that spasm of the ureter coincides with the waves on the electro-ureterogram, and that he could definitely decide whether or not the pain arises from the ureter. Trattner[6] described an electro-ureterogram in 1928, but at that time the results were inconclusive.

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* Read before the Urosurgical Society at Southern Pines, North Carolina, October 13, 1954.

Freeman and Watts[10, 11] performed several hundred lobotomies and found a close relationship between the frontal lobes and the autonomic nervous system. A sudden fall in blood pressure, relief from indigestion and palpitation, decrease in the blood sugar level, changes in gastrointestinal function, sudden outbursts of rage, trembling, and perspiration are some of the clinical observations following lobotomy which relate to the autonomic nervous system. Neurophysiologic investigations on animals in the past few years have uncovered several fundamental facts with regard to cortical representation of the autonomic nervous system. Rinkel, Greenblatt et al[12] discussed this pain equation, and they state that patients with mental disorders, generally classified as neurotic and emotionally unstable, are more susceptible to stimulation of the autonomic nervous system as judged by their response to muscular epinephrine and carotid sinus massage than a control group of normal people. Many had emotional instability which relieved itself by overflowing into the autonomic nervous system rather than by the more usual mechanisms of personality adjustment. The condition has also been referred to as chronic fatigue toxemia. We are thoroughly familiar with the principle of the somatic or cerebrospinal reflex arc and its cortical representatives which may modify it (Young and Wilson[13]). A similar reflex arc exists for the autonomic nervous system but none for the visceral reflex arc.

What constitutes an adequate stimulus to produce visceral pain has been the source of much research. There are probably a number of factors capable of initiating this response. One of the most common is overdistention of a hollow viscus. It is perhaps a likely cause for the cases of nephralgia being discussed. Harris and Harris,[14] in 1930, working on the basis that this type of nephralgia was the result of local overactivity of the sympathetic nervous system, showed by pyelographic and pyeloscopic studies that irregular and incomplete contractions of the calyces and renal pelvis existed from uncoordinated overactivity of the sympathetic nerves, so that the impulse for peristalsis either did not reach or did not pass beyond the ureteropelvic junction. This resulted in delayed emptying of the involved segments causing overdistention with colic. In rare cases the delay may be marked enough to be visible in the pyelogram as a slight hydronephrosis. Nesbit[15] describes a painful urinary condition called intermittent hydronephrosis which produces back or flank pain and offers a difficult problem in differential diagnosis, often bringing in the services of the cardiologist, the neurologist, the orthopedic surgeon, and even the psychiatrist, the gynecologist and the urologist. He emphasizes the importance of making an intravenous pyelogram during the attack of pain. It is easy to conceive of a vicious cycle being started. A susceptible individual sustaining emotional trauma, such as fear, grief, fatigue, personal inadequacy, and sex frustration, reacts to it by further stimulation of a hyperresponsive autonomic nervous system. Why the receptor organ is a kidney cannot be adequately explained unless perhaps that organ represents a focus of lowered resistance either as a result of previous injury or subclinical damage. Spasm of the smooth "ring" muscles of the calyces and pelvis from sympathetic stimulation produces colic, which upsets even more the emotional balance of the patient. This results in further stimulation of the susceptible autonomic nervous system, producing more severe, longer-lasting spasm, and thus more unbearable colic.

Trattner[16] describes 3 types of ureteral spasm: hypertonic, producing colicky, intermittent pain; hypotonic, causing constant, dull, aching pain; and atonia or paralysis from fibrosis or atrophy of the ureter. "Spasm as well as contractions of the ureter may involve the longitudinal muscular coat only, or the circular coat only, or both coats simultaneously. Such spastic or hypertonic states can be seen in intravenous and retrograde pyelograms. The entire length of the ureter may be involved in either systole or spasm, or only sections of it may be involved." He also states that "antiperistalsis is not uncommonly seen in experiments on a dog's ureter. Undoubtedly it occurs in the human."[17] A normal pyelo-ureterogram does not necessarily imply that the ureter and pelvis of the kidney function normally, nor does moderate ureteral dilatation with a low-lying kidney necessarily denote ureteral incompetency. Bransford Lewis[18] puts great stress on regurgitation renal colic and says that it is a distinct pathologic entity and not uncommon, and that, because of its frequency and severity and close simulation to urinary colic from stone, it demands prompt recognition by the urologist.

Kuntz[19] states that ureteral activity under normal conditions probably is subject to nervous regulation and that secreting peristaltic waves of contraction may be observed and are propagated along the ureter in regular sequence. Direct stimulation of the ureter at any point gives rise to a contraction wave which moves in both directions from the point stimulated, and thus peristalsis and antiperistalsis may be observed at the same time (Schilf,[20] 1926).

The ureter derives its nerve supply mainly from the renal, spermatic (or ovarian) and hypogastric plexuses. A subordinate plexus derived from the vesical plexus also surrounds its lower portion. The afferent fibers supplying the ureter are mainly components of the eleventh and twelfth thoracic and first lumbar nerves. Its vagus supply probably also includes afferent components.

The arrangement of the nerves in the wall of the ureter is relatively simple. The majority of the fiber bundles run longitudinally but branch freely and intercommunicate with one another. Ganglion cells have not been observed in the upper two thirds of the ureter in an animal. The sympathetic and parasympathetic components of the nerves to the ureter cannot be differentiated anatomically, but it is highly probable that the ganglion cells in the lower third are incorporated in parasympathetic efferent chains. Most of the intrinsic nerve fibers are unmyelinated and of small caliber.

It has been observed that if the mucosa of the ureter is not disturbed by trauma or infection the ureter can be stripped in its entirety without causing pyelectasis or ureterectasis. I have confirmed this observation in many instances by denervation of the entire ureter, although the adventitia was disturbed as little as possible.

Among the factors which may upset the emptying mechanisms of the urinary tract are movable kidney, ureteral kinks, peripelvic or periureteral compression from abnormal vessels, and extrinsic tumors from pelvic inflammation or from periureteral scar tissue subsequent to operation or irradiation. Other causes may be neuromuscular disturbances due to intrinsic inflammation, reflex disturbance, hormone activity, or the little understood condition of sympathetic hyperirritability to which Harris[14] has applied the term "renal sympatheticotonus."

The ureteral compression and pain reference associated with the congestion of menstruation, with pelvic inflammation in male and female, with the parametrial inflammatory reaction following pelvic surgery, especially hysterectomy, and that following the irradiation of the cervix for cancer are recognized and may cause stasis and consequent infection in every degree. Lapides[8] states, "It is known that the ureters are supplied with sensory nerves which carry pain impulses. The autonomic nervous system controls the blood vessels of the ureters but has no direct control over the muscles. However, it is possible to have vasoconstriction with resultant pain and spasm of ureteral muscle."

Braasch[21] held that certain localized hydronephroses and ureterectases not associated with organic obstruction were explained on the basis of inflammatory reaction in the muscular wall.

Rose, Hamm, Moore and Wilson,[22] in studying 385 pyelograms, found certain kidney pelves to be "dysuric," and which, while apparently normal, might in the process of emptying be anatomically so situated as to permit temporary or permanent stasis of small amounts of urine in certain poorly draining areas of the pelvis, and thus produce calyceal dilatation, pain, infection, stone, or hematuria.

Radiographic methods of serial pyelography and pyeloscopy have given us the real picture of neuromotor dysfunction. The cinex camera in the hands of Jarre and Cumming[23] revealed what bizarre forms the normal kidney could assume in emptying and how easily one might be led to error in interpreting the single pyelogram. Likewise the persistence of stasis may be demonstrated with this technic as due to spastic areas or to be the persistent anatomic obstruction of organic type. Moore's technic[24] of serial pyelography is very helpful in questionable cases.

The treatment of spasm syndromes of the kidney and ureter should follow a definite plan once the disease has been localized in this area. A placebo will rule out the psychic cases. The pain cycle must be interrupted as early as possible. It may be done in one of several ways. Dilation of the ureters with bougies or catheters was performed in my 100 cases and found to be the simplest method of producing paralysis of the sympathetic nerve endings in the ureteral wall and thus breaking the reflex arc with relief of pain in the majority of the patients. In some instances this will cause a regression for a long period of time; in others it has to be repeated at intervals. Relief of pain in patients with spastic ureteritis seems to occur with recovery of ureteral function. In the presence of recurrent low-grade pain I frequently use an indwelling catheter in the ureter for several days. This acts as a splint, and the catheter may be changed to a larger size as indicated. This procedure is always performed under intravenous anesthesia to insure maximum relaxation.

I have used paravertebral block in 12 patients as a diagnostic procedure and find it of great value in cases in which the diagnosis had not been definitely established.

Twenty-one patients who were not permanently relieved by ureteral dilations were subjected to renal sympathectomy and ureteral denervation. Ten were completely relieved, 5 showed some improvement, and 3 of the remaining 6 required nephrectomy because all other measures failed.

Total extirpation of the splanchnic nerves and removal of the ganglionated chains from DC7 through L1, as advocated by Young and Wilson,[2] has been used in 2 patients with excellent results.

Conclusions

1. A report is made of 100 cases of pain localized in the upper urinary tract without objective evidence of organic disease.
2. Connection between the frontal lobes and the autonomic nervous system is discussed. The relationship between the autonomic nervous system and the urinary tract is outlined.
3. Many patients are subjected to needless nephropexy and sympathectomy who may be relieved by more conservative measures.
4. A definite plan is outlined for the diagnosis of the condition termed "nephralgia."
5. Many of these patients required psychiatric care in conjunction with urologic treatment.

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(*Continued on page 158*)

MARFAN'S SYNDROME

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MARFAN'S syndrome is seen infrequently in its complete form. Evidence is accumulating that incomplete forms are more common than has been appreciated heretofore. With a sharpening of suspicion, more such formes frustes should be uncovered. Since an isolated physical finding may be the only manifestation of the anomaly, recognition of such a finding presupposes a knowledge of the full-blown syndrome with its various clinical possibilities.

Recently a family has been studied in which several members had some of the stigmas of this abnormality. Their composite historical and physical examinations well illustrate the varied features of the disease. The present report includes these data and a brief résumé of the characteristic features of arachnodactyly.

The appearance of the patient with Marfan's syndrome is striking. His lean body, disproportionately long, gracile limbs, and attenuated fingers give the illusion of great height. The arm span is greater than the height, and the legs are longer than the trunk; especially long and thin are the bones of the hands and feet. Thus, resemblance to the spider is not too fanciful.

There is usually a conspicuous lack of subcutaneous fat. Elastic tissue, ligament and muscle are poorly developed and want tone. This permits hypermobility of the joints and winging of the scapulas, and predisposes to hernias. Thoracic cage deformities are common and include bulging or depression of the sternum and faulty alignment of the spine. Skull deformities are seen less often, and are variable in type. The palate is narrow and highly arched. About half of the cases have the characteristic subluxation of the ocular lens. Displacement is usually superolateral, and is best demonstrated by holding the ophthalmoscope about 6 inches from the patient's eye, and focusing on the anterior chamber. The curved, refractile edge of the lens divides the pupil.

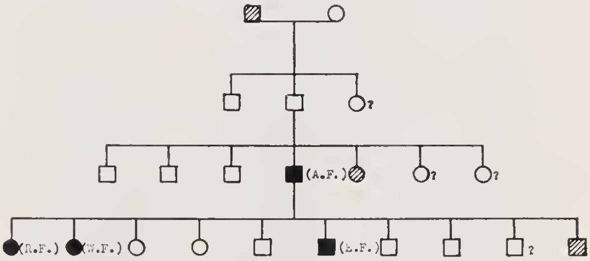

FIG. 1. Diagram of 4 generations. Since the diagram was submitted, a female in F_3 and a male in F_4 (not shown) have been classified "Suspected."

Other organs and systems are involved. Of these the cardiovascular system has had most attention. As the number of reported cases increases, notions of the order of frequency of specific abnormalities need revision. The commonest lesions are: septal communications, cystic medionecrosis of the aorta, and valvular changes which at times resemble rheumatic endocarditis. Not uncommonly, involvement of the aorta terminates in dissection and sudden death.

Etiology and pathogenesis are speculative. There is recent evidence that a factor found in sweet pea meal causes a similar mesenchymal abnormality in young rats. There have been several reports of the syndrome in more than one member of a family, but an accurate genetic pattern has not evolved.

REPORT OF CASE

A. F., a 39-year-old colored woman, was first seen at the District of Columbia General Hospital one week postpartum. At that time there were no specific complaints. She had always appeared tall and thin, her joints had been hypermobile, and her vision poor. Except for 3 bouts of "pneumonia" her general health always had been good. Clear-cut signs or symptoms of heart disease were denied.

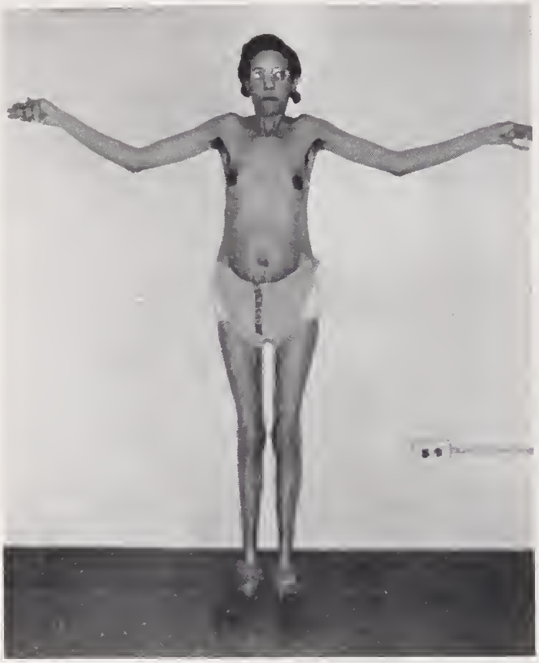

FIG. 2. A. F., 39-year-old colored woman with Marfan's syndrome.

The family history was pertinent in that the maternal grandmother (thought to be an American Indian) was thin and "very tall." She died of heart trouble at 60 years of age. A 50-year-old brother of the patient suddenly fell dead while working as a laborer. He too was remembered as unusually tall. Prior to death he had not complained of ill health. One infant daughter died at 4 months of age after an episode of acute respiratory distress, and another is reported to have an aortic systolic murmur at 9 months of age. The former child was longer and thinner than any of the patient's other babies. Three of her 10 children were examined and presented physical findings characteristic of Marfan's syndrome (figure 1). One infant grandson has inguinal and umbilical hernias.

On physical examination the patient's appearance was impressive (figure 2). Measurement from finger tip to finger tip was greater than from sole to crown. The limbs were thin and long, the legs longer than the trunk. Especially slender were the metacarpals and carpals (figure 3). The subcutaneous fat was scant, the muscle tone poor, and the ligaments lax. The patellas could be completely displaced from the knee either laterally or medially. There was a moderate genu valgum (figure 4). Except for the elbows, which could not be extended beyond 150 degrees, the joints of the limbs had unusual mobility in extension.

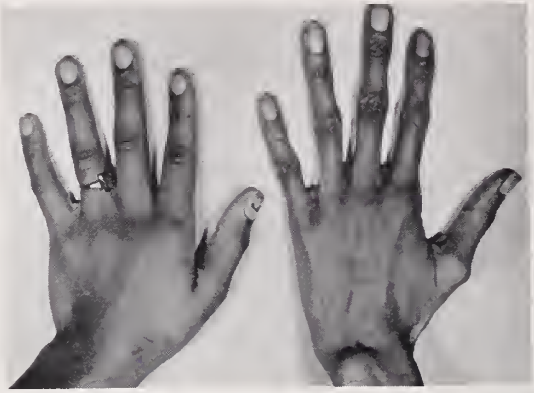

FIG. 3. Patient's hand compared to that of a normal daughter.

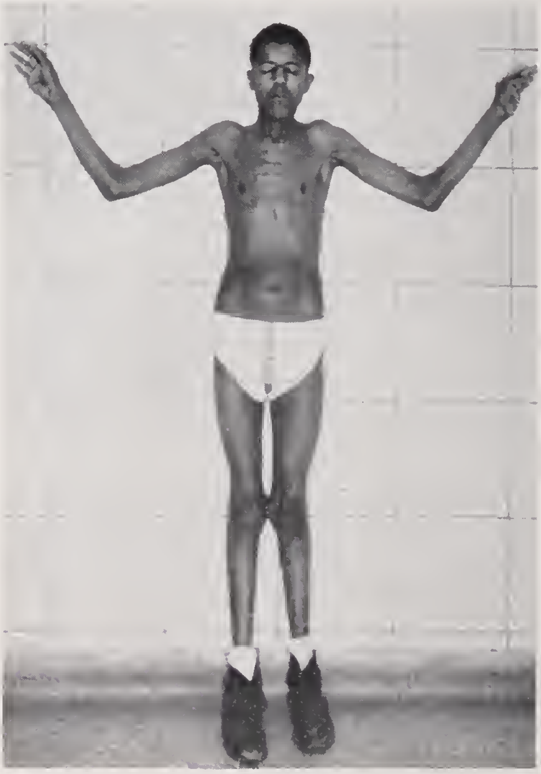

FIG. 4. R. F., 16-year-old colored boy showing genu valgum and other features of Marfan's syndrome.

TABLE 1

Comparative Data of Mother and Three Children with Marfan's Syndrome

	A. F.	E. F.	R. F.	W. F.
Height	171 cm.	176 cm.	162.5 cm.	173 cm.
Arm span	176 cm.	186 cm.	171 cm.	180 cm.
Leg length	96 cm.	94 cm.	92.5 cm.	94.5 cm.
Subcutaneous fat	Decreased	Normal	Decreased	Decreased
Muscle tone	Poor	Good	Poor	Fair
Ligaments	Lax	Lax	Lax	Lax
Abdominal striae	Present	Present	Absent	Absent
Hypermobile joints (see below)	Present	Present	Present	Present
Extension at elbow	Limited	Limited	Limited	Limited
Genu valgus	Slight	Slight	Marked	Marked
Arachnodactyly	Present	Present	Present	Present
Subluxation lens	Present	Present	Present	Present
Tremulous iris	Present	Present	Present	Present
Deafness	Partial	Absent	Absent	Partial
Kyphoscoliosis	Slight	Absent	Moderate	Moderate
Pigeon breast	Slight	Absent	Moderate	Moderate
Narrow, high palate	Present	Present	Present	Present
Heart disease	Absent	Present	Absent	Absent
Miscellaneous		Spina bifida T_1	Slow learner	Unequal leg length

On examination of the eyes the lenses were found to be displaced laterally and upward (figure 5). The pupil was small, and the iris tremulous upon motion of the head.

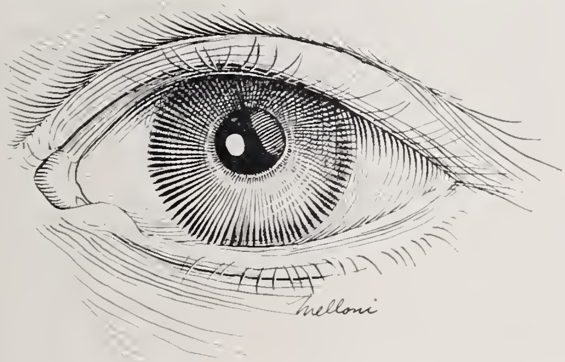

FIG. 5. Superolateral subluxation of lens (schematic drawing).

Vision was moderately impaired. The palate was narrow with an unusually high arch. Hearing was poor on the left, with diminished air conduction.

The scapulas were winged (figure 6); there were moderate kyphoscoliosis and pigeon breast. There were multiple abdominal striae. Hemogram, urinalysis, serology, blood urea nitrogen and blood sugar were normal. X-ray examinations revealed long, delicate bones with thin cortices. The heart and great vessels were within normal limits.

The 3 children who were known to resemble the mother were available for examination. They were 2 boys, R. F., 17, and W. F., 15, and 1 girl, E. F., 16 years old. These children physically mirrored their mother to a remarkable extent (table 1).

Only the daughter gave a history of cardiac disease. At the age of 3 years she had generalized swelling, and her family was told that this was due to rheumatic heart disease. There had been no neonatal cyanosis, arthropathies, epistaxis, chorea, or other history to suggest heart disease. There was never a similar episode.

On physical examination, she was found to have a grade 3 apical systolic murmur. There were no other murmurs, and the sounds were of good quality. An electrocardiogram, hemogram, urinalysis, test for syphilis, blood urea nitrogen, and fasting blood sugar were normal.

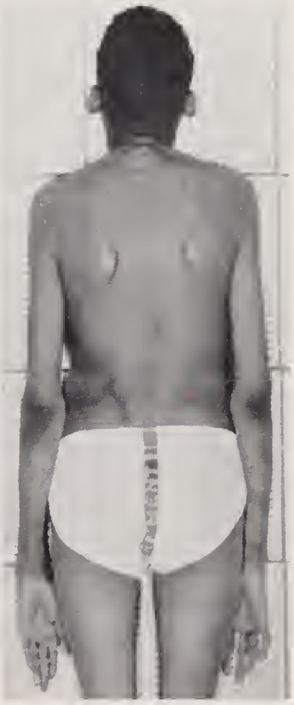

FIG. 6. W. F., 15-year-old colored boy showing winged scapulae.

A roentgenogram of the chest showed prominence of the pulmonary conus and a spina bifida at T_1. No other abnormalities were demonstrated.

(Continued on page 158)

President's Page

LOOKING TO THE FUTURE

State and county medical societies which are constituent and/or component units of the AMA have functioned in the past as local centers for scientific discussions. They have also been looked upon as centers for postgraduate education, keeping their members abreast of advances in various medical areas. This has been an essential function of medical societies, through which they have maintained a scientific cohesion in all branches of medicine.

Developments in scientific medicine during the past several years have altered the above régime considerably. Hospitals, for example, are now required to hold regular medical staff meetings. Medical centers and teaching institutions sponsor postgraduate and refresher courses for practicing physicians throughout most of the year. Specialty groups have developed their own societies. All of these tend to segment the parent organization. This breakdown of medicine into segments may be necessary in our search for the detailed factors concerned in health and disease.

Despite this scientific segmentation, some way must be found to maintain a cohesive medical organization—surgeons, psychiatrists, ophthalmologists, pediatricians, and others having a common responsibility, a common privilege, and a common right. In our own community these can be kept inviolate by mutually sharing our Medical Society activities in our Medical Society home.

To make this home and its activities more effective, increased facilities will soon be needed for administrative personnel, committee meeting rooms, and social functions. Our present home—a monument to those who planned and executed it—has served us well. Fortunately, provisions were made for its enlargement. It is therefore not too soon to begin a building fund and for the young physicians of today to think about the kind of meeting place they will want in the future.

Preston A. McLendon

Editorials

LIEUTENANT GENERAL OF DISEASES

The facts and figures for cancer in 1955 are startling. For years, cancer has been the lieutenant general of diseases, the second greatest killer of mankind. This has not changed, but this year there are a number of basic changes from figures previously used in connection with this disease. It is clear from recent studies that the figure "1 in 5" is now outdated. A more accurate statement, "Cancer will at some time strike 1 in every 4 Americans, according to present estimates," indicates the seriousness of the cancer problem. Progress has been noted on many fronts. The job is yet to be completed.

Just as the seriousness of cancer has increased, so also has the program of fighting this disease increased. The American Cancer Society is the only organization which combats cancer through a three-fold program of research, education, and service to the cancer patient. The District of Columbia Division of this Society has not only kept pace with the movement throughout the country but has been a leader. We can be proud of what this organization is doing in Washington and we should support the American Cancer Society with an effort stronger this year than ever before. April is Cancer Control Month by Act of Congress, by Presidential proclamation, and by proclamation of the Commissioners of the District of Columbia. Each year during this month the American Cancer Society conducts its Cancer Crusade—a crusade to bring information about cancer to the community and to raise the funds necessary to carry on its work.

Your contribution to the American Cancer Society is an investment in the future. It will bring about the final destruction of man's cruelest enemy—the lieutenant general of diseases, Cancer.

Peter D. Comanduras, M.D.
Chairman, Professional Education Committee, District of Columbia Division of the American Cancer Society

DIAGNOSIS OF CANCER

It is generally agreed that early diagnosis makes a radical difference in the effectiveness of present-day methods of treating cancer. The difference between early and late discovery is truly one of life or death.

Under these circumstances, it is only natural that a great deal of effort has been devoted to practicable methods for early detection. In discussing this aspect of the cancer problem in *Science* for December 31, 1954, Heller commented on the special need for quick screening technics. He mentioned the ideal solution—"a simple, inexpensive chemical or blood test as useful as the Wassermann test for syphilis"—and went on to say that we have yet to attain this ideal.

The remainder of Heller's essay was concerned with cytologic tests for cancer in specific sites. In his opinion, this method has a proved value for early detection of cancer of the uterine cervix. This implies three things:

1. Vaginal cytologic examinations by the Papanicolaou technic do discover cancers at an

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

early stage, a stage at which symptoms and physical signs are lacking.

2. The test can be done (or at least the specimens obtained) quickly and easily by any physician doing a routine vaginal examination.

3. Use of the test does not constitute an economic burden either for patients who pay for private medical care or for taxpayers who might foot the bill for such testing of patients who are medically indigent.

Factors cited by Heller, as well as those obtained from other sources, strongly indicate that these three utilitarian criteria are indeed fulfilled. It is to be wondered, then, why vaginal cytologic examination has not been more widely accepted by physicians in private practice.

Of course, some physicians have fully adopted the technic; for example, in this locality there are two general practitioners who were among the first to use it. For several years both of these physicians have included the cytologic examination as a part of the pelvic examination routinely done on their private patients. One of these physicians spent many hours acquiring expert proficiency in the Papanicolaou methods of staining and interpreting smears. The other doctor mails the smears to a laboratory where such expert help is available. Both physicians are firmly convinced that this addition to the routine physical examination of their women patients is an important, even indispensable, service.

But these practitioners are exceptional. The great majority of physicians do not routinely use vaginal cytologic examination. Is it because they have not heard of the method? Or have they heard of it and remained unconvinced of its practical value? Or do they neglect it because they are too busy with other aspects of patient care? Or is it neglected simply because physicians have not bothered to think about the problem at all?

It would seem that the use of vaginal cytologic examination has evolved to a point where a practicing physician must at least consider whether or not he should include the method in routine examinations.

H. H. H.

TELEVISION IN MEDICINE

The future of television in the field of medical sciences was the subject of a three-day symposium held in January at the Armed Forces Institute of Pathology in Washington, D. C., under the chairmanship of Colonel Joseph L. Bernier. Participants included representatives of the television industry as well as scientists and educators. The high light of the meeting was a demonstration of the use of television as a means of consultation between pathologists.

Dr. I. M. Ravdin, Professor of Surgery at the University of Pennsylvania, appeared on the color television screen during removal of a breast tumor in an operating room in the University Hospital in Philadelphia. The tumor was sectioned by the pathologist, Dr. Robert Horn, and the specimen was demonstrated to the television audience in Washington. A frozen section was then prepared and the histologic picture appeared on the screen. Dr. Hugh Grady, of the staff of the Armed Forces Institute of Pathology, was stationed in Baltimore at a television receiver and was able to confirm Dr. Horn's diagnosis from televised sections.

In another demonstration color "telemicrographs" were beamed by microwave from the Naval Hospital in Bethesda to the Armed Forces Institute of Pathology building at Walter Reed Army Medical Center. Again, pathologists in the audience were able to make a diagnosis from the television screen.

Brigadier General Elbert DeCoursey, The Director, Armed Forces Institute of Pathology, pointed out to the audience that long distance consultation is particularly important to pathologists who may be at some distance from their nearest colleagues.

The possibility of employing television as a means of consultation between pathologists is only one of the many uses to which television may be put in the future. Dr. Ravdin, who spoke at the meeting, mentioned that a suburban hospital near Philadelphia regularly uses television for consultation on the interpretation of X-ray films. Dr. Ravdin also described an instance when a surgeon operating in Los Angeles was able to consult with a New York surgeon who was watching the operation on a television screen. At the Walter Reed Army Medical Center color television has been in use for some months for demonstrating surgical and dental procedures.

Color television may be substituted for the usual microslide projector. The screen picture given by slide projectors is quite satisfactory, but the projectors have the disadvantage of requiring a strong light with the result that the heat from the light may damage the slide. Television requires no more light than is now used in direct microscopy.

Black and white television is satisfactory for demonstrating unstained microscopic fields, for example, preparations showing amebae or other intestinal parasites. It is also useful in phase microscopy or that employing ultraviolet light or polarizing optics. It also serves to demonstrate the observations made with the electron microscope. Television scanning technics may be applied to the counting of particles in suspension, such as blood cells.

Two methods or systems of color television are now available to prospective users, the field sequential system and the N.T.S.C. or simultaneous system. Both give good color reproduction. The latter system was approved by the Federal Communications Commission for color broadcasts as recommended by the National Television System Committee (N.T.S.C.). It is also known as the compatible system since color telecasts utilizing this system can be picked up as black and white pictures on the monochrome receivers now in general use, or as color pictures by the N.T.S.C. color receivers currently available. Choice of a system will be guided by the needs of the user.

Telecasts may be restricted to a selected audience by a closed circuit using commercial cables, or they may be sent through the air on microwave channels authorized by the F.C.C.

Apparatus is now available for the projection of television on the large screens in common use for lantern slides or motion pictures. This permits comparatively large groups to see demonstrations which formerly could be shown only to limited groups because of the comparatively small size of the usual television receiver screens.

It is also possible to record color or black and white television programs on film or on video magnetic tape. Any television production can thus be recorded and shown at any future time through the television system or through a standard motion picture projection apparatus.

Television scanning devices can be used for the rapid transmission and recording of printed pages. This system is in operation between the Library of Congress and the National Institutes of Health.

Hazardous experimental procedures, for example, those involving radioactive materials, may be observed and recorded by means of television, thus permitting the observer to avoid dangerous exposure. Television may be used for the visualization of structures in spectral ranges to which the eye is insensitive. Technical procedures requiring intimate observation may be shown to large groups. The teaching of microscopy can be made more effective by the use of television.

Television may be used in hospitals for the prolonged observation and recording of the behavior of patients, as, for example, mentally disturbed patients. It also makes possible the observation of several hospital wards from a central station.

Patients may be presented to groups of students without the actual presence of the patient.

Autopsy material may be demonstrated to a hospital staff on television receivers conveniently located in different parts of the hospital.

Television may be used to bring instruction in the field of civil defense to both doctors and laymen.

Television is not only an educational tool, but it also has many potentialities as a scientific instrument involving ultrasonic waves, electron beams, "blink" technics, scanning technics, and other technics requiring an intimate knowledge of modern physics. As a tool, the position of television in medicine today may be compared to that of the microscope in the days of Leeuwenhoek.

COLONEL HUGH R. GILMORE, JR.,
M.C., U.S.A.
Curator, Medical Museum, Armed Forces Institute of Pathology

In and Out of Focus

BY THE OBSERVER

In Search of a Solution

Readers of this column have undoubtedly become weary of hearing about the multiplicity of medical meetings, the struggle for attendance, and a possible solution. Nevertheless, the present situation cannot go on indefinitely and repetition may hasten constructive action.

Washington is reputed to have a larger number of medical organizations than other cities of its size. One gains the impression, however, that its experience does not differ greatly from that of other large urban centers. There are at present 36 general and special medical societies holding from 2 to 12 meetings annually, 10 Sections of the Society, which meet on the average of once a month, and, of course, hospital staff meetings.

The Society itself sponsors 2 large meetings which have been very well attended, the ANNUAL SCIENTIFIC ASSEMBLY and the Midwinter Seminar. Its monthly meetings have not fared as well, it being difficult to get out a respectable number even for an outstanding speaker. Other medical organizations, it appears, have had the same experience with their regular meetings.

Dr. Preston A. McLendon, President of the Society, in his February President's Page commented on a suggestion recently submitted to the Executive Board that a committee be appointed consisting of representatives of the major medical organizations and institutions in Washington to study this situation and, "to the extent possible, integrate the programs as to subject matter presented and the dates on which they are scheduled."

Dr. I. Phillips Frohman also had something to say along this line. In an editorial appearing in the January issue of MEDICAL ANNALS he wrote: "I should like to see a council established, which would be comprised of members of the District Medical Society, the George Washington University Medical Society, the faculties of Georgetown and George Washington Universities, and any other educational groups that might wish to enter into this combined programming council."

Both of these suggestions are in line with with what was attempted some years back. However, on that occasion the timing was faulty. The committee did not meet until July and many organizations had already planned their programs for the coming year. As a result, the response from various groups was not too satisfactory, a number not being represented.

In view of the current interest in this problem, this seems to be a propitious time to make another attempt to improve what is often a wasteful and needless duplication of effort. However, should a committee or council be appointed, not too much should be expected of it in the immediate future. There are many obstacles to be overcome, not the least being the understandable reluctance of individual organizations and institutions to relinquish any of their prerogatives. It seems to your Observer that this reluctance could be overcome by frank discussion, sincerity of purpose, and persistence.

Some time ago your Observer predicted that some day television receiving equipment would be installed in the Society's building. Lectures, clinics, conferences, and other medical programs would then be received from medical institutions here and elsewhere.

Perhaps this is too visionary and even impractical. It may well be that the response to the coast-to-coast, closed circuit "Videclinic," which had not been presented when this was written, will give some clue to the possibilities of television as an educational medium where the practicing doctor is concerned. The program, planned and sponsored by the American Medical Association and Smith, Kline and French Laboratories, concerns itself with the management of coronary artery disease. It should prove an interesting experiment.

There is, of course, nothing novel in the use of television in medical education. It already has an important place in the curriculum of medical schools. Through the generosity of larger drug firms, it has in recent years taken its place on the programs of medical conventions. The American College of Physicians also televised a program over a closed circuit to its units throughout the country. So, it would seem the wide use of television as an educational medium in medicine is within the realm of possibility. Whether it will prove as satisfactory to physicians as conventional programs remains to be seen.

Some of the advantages of the televised medical program over the conventional type are: the opportunity of seeing and hearing outstanding physicians in this country and abroad; to sit in on clinics, conferences and other group sessions which one cannot attend; to attend conventions without being required to travel to distant places; and to be present when medical history is being made. The principal disadvantage is the inability of those in the audience to question the speaker whose image appears on the screen and to receive his answer. This has been done to a limited degree but the mechanical devices available are not too satisfactory. Until American inventive genius solves this problem, it is doubtful whether televised programs will supplant meetings where the speaker addresses an audience in person.

It is still your Observer's belief, however, that television will be developed to a point where there will be a network of receiving equipment installed in medical society meeting places throughout the country. If this comes to pass, the inevitable result will be fewer medical meetings and undoubtedly fewer medical societies.

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Acts of Devotion

The most heartening experience for an organization worker is to witness the complete change which frequently takes place in a previously uninterested individual upon his being elected or appointed to a position of responsibility. Gone is his apathy to the organization's affairs, and in its place are a new awareness of personal responsibility and a determination to perform his duties to the best of his ability.

While such conversions are stimulating, the fact is that what may be called the "reliables" are the backbone of any organization. They never waver in their interest and support from the day they are elected to membership. It makes little difference to them whether or not they are given a specific assignment. Should they be elected or appointed to an important position their interest does not terminate with their term of office. They can always be counted on.

CAT.

Dr. Kober

Dr. Reichelderfer

Dr. Ruffin

The three physicians who prompted these comments belong in this category. They were not only loyal to the Society throughout their long professional careers, but gave tangible evidence of their devotion in their wills. These physicians—Dr. George M. Kober, Dr. Luther H. Reichelderfer, and Dr. Sterling Ruffin—are well known to Washington doctors familiar with the Society's history. Those to whom they are only names, it is hoped, will find the following account both informative and stimulating.

Dr. Kober had made his exit from the medical scene several years before your Observer's arrival. He was soon to learn, however, that Dr. Kober had been one of Washington's most distinguished physicians, widely recognized as a medical educator, civic leader, and philanthropist. For a number of years Dr. Kober labored energetically for a pure water supply in the District and for the enactment of pure food and drug laws. He also played a leading role in establishing the District's Tuberculosis Hospital.

Dr. Kober was President of the Medical Society of the District of Columbia in 1903. He is perhaps best remembered as the very able Dean of Georgetown University School of Medicine.

Among Dr. Kober's descendants are two well known Washington physicians, Dr. William P. Herbst, Jr., and Dr. Harry Zehner. Dr. Herbst and Dr. Zehner have done much to perpetuate Dr. Kober's memory, the former through his interest in the Kober Lecture, the latter in a manner which is related here.

About two years ago, Dr. Zehner, who is thoroughly familiar with Dr. Kober's varied activities, recalled that Dr. Kober and a number of other public-spirited citizens organized two corporations: one to improve the sanitary conditions in a neglected part of Washington, and the other to build low rental houses for people of very modest means. These corporations were not profit-making in the commercial sense, the returns from them being very limited, but rather an effort to improve the lot of the less fortunate. Dr. Kober directed that the income from a certain proportion of the shares he acquired should be given as prizes to tenants who kept their homes and yards in the best condition. Dr. Kober further stipulated that, should the corporations be liquidated, the proceeds from his stock should be turned over to the Medical Society of the District of Columbia. Recently the stock was disposed of and the proceeds, as directed, were forwarded to the Society in the amount of $5,128.23. Dr. Kober expressed the wish that these funds be used for the upkeep of the library.

Had it not been for Dr. Zehner's vigilance and acquaintance with a patient who was familiar with the provisions of Dr. Kober's will, these funds might not have found their way into the Society's coffers. As it is, the intent of Dr. Kober's will with respect to the Society has been carried out.

Dr. Reichelderfer was President of the Society in 1923. Some years later he was appointed District Commissioner and served as President of the Board of District Commissioners from 1930 to 1933. His appointment was looked upon as "a tribute to the medical profession and an honor to the Society."

Your Observer recalls Dr. Reichelderfer very well, for he served with him on the District's Procurement and Assignment Committee for Physicians throughout World War II. Although advanced in years, he was a faithful attendant at all meetings, which were often long and tiring.

Personally, he was a kindly man whose voice was never raised in anger. Quiet, courteous, thoughtful, he was, nevertheless, an interesting companion. He, like Dr. Kober, was deeply interested in the Society's affairs and proud of its standing and accomplishments.

In his will, Dr. Reichelderfer provided that, upon the death of his widow, Mary M. Reichelderfer, the amount of $2,000 should be paid to the Medical Society to be used as it saw fit. A check in this amount, plus accumulated interest, was received late in December, 1954.

Another substantial bequest was made by Dr. Ruffin. The facts surrounding this bequest were related in some detail in this column in the March, 1952 MEDICAL ANNALS. Dr. Ruffin was President of the Society in 1935–36.

Long a member of the faculty of the George Washington University School of Medicine, Dr. Ruffin was held in high esteem by hundreds of students who regarded him as one of their ablest teachers. He was a gentleman of the old school—distinguished in appearance and courtly in manner.

In his will, Dr. Ruffin directed that funds bequeathed by him be "used for the relief of ill or superannuated needy active or life members of the Society." The funds are administered by a committee appointed by the President of the Society. Cash and securities in the Sterling Ruffin Fund now amount to $21,091.23.

It is easy, in these turbulent times, to pass over lightly these acts of devotion. They are recorded here "lest we forget" those of our number who served well and remembered generously.

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. . . Least Understood Liability . . .

There is a wide range of questions submitted to your Observer daily, many of them of a medicolegal nature. Not infrequently a physician wishes to know whether he can properly turn a patient over to another doctor. For a variety of reasons he is dissatisfied with the relationship which exists between the patient and himself and would like to terminate it. This is often not as simple—and safe—as it would seem, for, once a physician has assumed responsibility for a patient who is ill, he cannot abandon the case unless mutually satisfactory arrangements can be effected.

In a series of articles on causes of malpractice suits appearing in the *Utah Medical Bulletin*, the first of which appears in the January issue, some excellent advice is given physicians in these circumstances. The *Bulletin* has this to say on what it describes "as the least understood liability of the physician":

> "You may refuse to take a case for any reason which seems valid and ethical, at the first request for treatment of the patient, his family, or friend; but once you accept the responsibility of the care of a case, you must continue under any conditions until proper substitution is made. Your responsibility is such that you had better stay on the job continuously whether you are ill or not, unless a proper substitute is secured, satisfactory to the patient, and written explanation given to the patient."

Physicians are reminded that acceptance of a case is an implied contract, and advised, if the patient's condition justifies, to take precautions against charges of abandonment. It is suggested that they have with them the following printed form to hand to the patient:

"For various reasons, such as vacation, illness, etc., it may be impossible for me to take care of an emergency should it arise; in this case, please call Dr. B, whose telephone number is ...., or Dr. C, whose telephone number is......... Failing to contact either of these doctors, call................., who will obtain medical attention for you."

In Washington subscribers to the Society's answering service, MEDICAL BUREAU, are assured that should their alternates be unavailable, the BUREAU will obtain a physician. It has been suggested to the Medical Bureau Committee that the BUREAU provide its subscribers with a supply of the above form, leaving space for the insertion of the alternates' names and telephone numbers, but inserting the name of the BUREAU as the final source for the required medical attention.

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A Friend Writes a Book Your Observer was frankly dubious when his friend, Mr. James E. Bryan, until recently Administrator of the Medical-Surgical Plan of New Jersey, mentioned to him last summer that he was writing a book for doctors on public relations. What could one possibly say on this subject which would fill a book? And if there was sufficient material, would doctors read it?

In answer to the first question, Mr. Bryan has given a most adequate answer, for he has written an absorbing and informative book. His central theme is that everything the doctor does has a profound effect on the public's attitude toward the medical profession, and that friends lost in doctors' offices cannot be won over by the most effective public relations program. Indicative of this approach are the chapter headings: "The Doctor and His Patient," "The Doctor and His Fee," "The Doctor, His Office and Staff," "The Doctor and His Colleagues," "The Doctor and His Community," and so on.

Whether this book will be widely read remains to be seen. In your Observer's opinion, every doctor could read it with much profit to himself and to his profession. It contains not only a wealth of helpful information by a lay administrator of wide experience in medical affairs, but, as is apparent in several chapters, the sound advice of physicians with whom he has long been associated.

When your Observer first started reading Mr. Bryan's book he did so dutifully and, he must confess, without too much enthusiasm. However, the literary skill of the author and the effective manner in which he marshalled his facts and arguments won him over completely. Seldom has he found a book of this kind so engrossing.

In dealing with matters which ordinarily would be delicate for a nonmedical writer, Mr. Bryan states his views tactfully but with refreshing candor. Obviously, he exercised great care in selecting his material, the wealth of which indicates the great amount of labor that went into the book's preparation.

The introduction is written by Dr. Louis H. Bauer, Past President of the American Medical Association, who pays this high compliment to the author: "As a nonmedical man himself, but the son of a physician, the author, in his years of association with the medical profession, has come as near to absorbing and understanding the viewpoint of the profession as any nonmedical man could."

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The Doctor's Chief Mission On a visit to the office of one of the senior members of the Society recently, your Observer had an illuminating discussion. The good doctor—a man of unimpeachable integrity—had been perturbed for a long time by what he considered was the failure of many younger doctors to appreciate that theirs was a "mission" and not just a vocation. This had been so much on his mind that he had placed his thoughts on paper and, without further ceremony, gave your Observer a brief hand-written statement to read, entitled "Use Your Heart as Well as Your Head." This is how it read:

"It is believed that most doctors are conscientious and desire to do what is right and honest by their patients, and that those who err generally err through ignorance rather than otherwise, but among doctors of the present day (1954) there seems to be an increasing element that tends to commercialize the practice of medicine. This may be due to greed, which is common to many in this day as in the past, or it may be, and often no doubt is, due to need. There are many expensive things that seem necessary these days, things that make for comfort and indicate success in business, and things that aid the doctor in his work as a physician.

"The doctor's chief mission is to relieve pain or suffering, physical or mental; rarely but occasionally he may save a life. Often his advice may tend to prolong existence and make life more comfortable. Undoubtedly the doctor is entitled to a reasonable remuneration for his services, but he should be fair and follow the rules laid down by doctors for doctors since the beginning of medical practice. His is and always has been considered a mission of mercy. His fee should be to him a secondary consideration.

"Illness is often unexpected and the unexpected expense may result in serious hardship for those who fall ill or for their families. Medicine is not a charity, of course, but let us use our hearts as well as our heads and be not too insistent upon getting paid for every bit of work done. In the long run this will surely redound to our credit—and eventually pay dividends in more than one way."

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The Fragile Male

Dr. Milton R. Weed, Editor of the *Detroit Medical News*, "views with alarm" evidence that the male has become "fragile" and, from the standpoint of morbidity and mortality, is no match for the "weaker sex." Unless something is done about it, he suggests the situation could become serious.

> "It has been assumed," Dr. Weed writes in a recent editorial, "that women are biologically more resistant to disease and death. The birth and death rates for males have always been higher than those for females. There are also striking sex differences in causes of death. The incidence of death from carcinoma of the lung is 4½ times as high for men as for women; for peptic ulcer it is 4 times as high; for suicide and homicide 3 times as high; for tuberculosis and syphilis 2 times as high; and for poliomyelitis 50 per cent higher. Twenty-five times as many men die of arteriosclerotic heart disease before the age of 40 years as women."

As to longevity, Dr. Weed has still less consolation for the male:

> "If the difference . . . was due solely to the biological superiority of the female, the difference in death rate should remain constant. Actually the death rate for females has declined more rapidly than for males; the difference in life expectancy between white American males and females has increased from 1.9 years in 1900 to 7.2 years in 1953."

Reasons for the decline of the male he ascribes to these facts:

> "Their greater aggressiveness and greater economic responsibilities result in more worries, stress, contact with infectious diseases, and physical danger. Women are more likely to release pressure through tears, rest when they feel poorly, consult their physicians early when ill, and to follow instructions better than men. Women probably get better medical care than men, and more women are hospitalized in private hospitals."

What can be done about "excessive male mortality"? Suggested is a Nation-wide inventory of the "physical, mental, and emotional assets and liabilities of the male"; intensive efforts to prevent accidents and occupational diseases; a more aggressive research program in cardiovascular diseases and cancer; and the alleviation of stress and strain in a highly competitive society through education.

There is obviously a long and difficult road ahead for the male if he is to overcome the handicap of being "outnumbered, outwitted, and outlived by the sturdier female."

T. W.

GRIEVANCE COMMITTEE CASE REPORTS

Case Report 5

Some complaints are unavoidable. However, occasionally the Grievance Committee receives complaints that obviously might have been avoided with better office management. Here are two cases in point.

Case No. 1. Miss R was told at the Blood Bank that she had high blood pressure. She visited a private physician, Dr. X, to be examined and to have her blood pressure checked. Miss R was not familiar with what such an examination might involve, and Dr. X failed to explain the procedure or the cost. The bill for $48 which she received was considerably more than she had expected, so she asked for an itemized statement. She then sent Dr. X a check for $25 and wrote the Committee asking if the fees were in line with those charged by other doctors in this area. The itemized statement showed charges for History and Examination, Urinalysis, Blood Counts, Wassermann, NPN, Blood Sugar, and an X-ray film of the chest.

The Committee found no fault with the service rendered nor with the fees charged for individual items, and so wrote Miss R and Dr. X. As it was evident that Miss R had not understood the reason for such an examination nor the charges, Dr. X was advised to have a friendly talk with her and endeavor to reach a reasonable settlement for the balance due. This was done and Miss R later wrote the Committee that as a result the matter had been settled satisfactorily.

Case No. 2. Mrs. S was referred by her physician to Dr. C, a specialist. In accordance with the policy of this physician, certain laboratory studies were made before he saw the patient. After Dr. C's examination he informed Mrs. S that it would be necessary for her to have an X-ray examination before he could make the proper diagnosis and advise treatment. She did not return for the X-ray examination.

When Mrs. S received a bill for $17—$12 for laboratory examinations and $5 for an office visit—she asked why she had not been told beforehand what the laboratory work would cost. She was told that it was not the policy of that office to inform patients of the amount they would be charged unless the patient asked. Mrs. S then requested an itemized statement. This showed that the laboratory work had consisted of hemoglobin estimation, red and white blood cell counts, differential, hematocrit, sedimentation rate, blood sugar, serology, and urinalysis. She wrote the Committee because she thought the necessity for such tests should have been determined by the physician before the tests were made, that she should have been informed beforehand of the cost, and that the charge for the tests was excessive. She added that her ailment was subsequently diagnosed by a New York physician as a relatively minor condition which was treated and cured for a total charge of $10.

The Committee felt that Mrs. S should have been informed in advance of the specific need for the tests in her individual case and what they would cost, but that the fees charged were reasonable and complaint on that score not justified. The Committee also wrote Dr. C that future misunderstandings would be minimized if patients were informed beforehand of the reason for such routine preliminary tests and the expense to be incurred.

Conclusion: The Committee realizes that it is not the habit of many doctors to discuss their charges with their patients at the time of their first call. Some doctors may feel that the patient might not understand, or might be offended, or that the mention of fees by the physician might give the impression that he is interested in the financial rather than the physical condition of the patient. Other physicians might feel that they do not have time to discuss fees during busy office hours, or that it is beneath their dignity to discuss such details with patients. However, the doctor will find that his patient is usually much interested in what the cost will be when it is a matter of an operation, or anything more than a simple office call. The practice of medicine has a business as well as a personal side. There is no valid reason why the doctor should hold aloof from discussing the business side of the transaction with the other interested party. If he hasn't the time he should delegate someone in his office to do this tactfully for him.

The Committee feels that many an unfortunate misunderstanding would be prevented were it the rule for the doctor or someone in his office to explain methods and costs to patients on their first call. Most patients would very much appreciate this. It should be an established procedure in every well regulated office. Both of the above complaints and many others that come to the Committee would have been avoided had this been done.

CHANGES IN COMMUNICABLE DISEASE REGULATIONS

Following is a copy of the recent changes in the Communicable and Preventable Disease Regulations which have been adopted by the Board of Commissioners of the District of Columbia. The three specific diseases in which changes have been made were in keeping with the recent advances in knowledge of the epidemiology and therapy of these diseases, and upon advice of scientific groups, such as the American Academy of Pediatrics and the American Public Health Association, who have recommended these changes.

Order No. 55-57 to the Department of Public Health amending the regulations regarding isolation and restriction of contacts of meningitis, pertussis, and streptococcal infections reads as follows:

That the REGULATIONS TO PREVENT AND CONTROL THE SPREAD OF COMMUNICABLE AND PREVENTABLE DISEASES Adopted by the Commissioners on May 1, 1947 and amended on August 16, 1949 and September 11, 1952, are hereby further amended as follows:

In SECTION 6, "Specific Rules Governing the Restriction of Movement, Isolation, Quarantine, and Release from Restriction of Movement, Isolation or Quarantine, . . ." under the title "Meningococcal meningitis (meningococcemia)"

DELETE the wording: "Meningococcal meningitis (meningococcemia)

"Isolation of person affected for 3 days if given adequate sulfonamide treatment or equally effective treatment approved by the Health Officer; otherwise, for 14 days. No restriction of contacts."

and SUBSTITUTE therefor: "Meningococcus meningitis (cerebrospinal fever, meningococcemia)

"A. Isolation of patient—advisable until clinical recovery.
B. Quarantine and restriction of contacts—none. Surveillance by physician is recommended.
C. Immunization—none."

—under the title "Whooping cough (pertussis)"

DELETE the wording: "Whooping cough (pertussis)

"Separation of the patient from susceptible children, exclusion from school until 3 weeks after onset of typical paroxysms, and exclusion from public places and streets unless accompanied by an adult to prevent contact with other children."

and SUBSTITUTE therefor: "Pertussis (whooping cough)

"A. Isolation of patient—3 weeks
B. Quarantine and restriction of contacts—none. Booster immunization is recommended.
C. Immunization—recommended, but not mandatory."

—under the title "Scarlet fever (scarlatina)"

DELETE the wording: "Scarlet fever (scarlatina)

"Isolation of person affected for 7 days following appearance of eruption and thereafter until clinically recovered and until purulent discharges have ceased. Quarantine of household contacts under 15 years of age for 7 days. No restriction of other household contacts provided they are not giving nursing care to the patient."

and SUBSTITUTE therefor: "Streptococcal infections (scarlet fever, streptococcal sore throat, erysipelas and puerperal infections)

"A. Isolation of patient—until clinical recovery.
B. Quarantine and restriction of contacts—none.
C. Immunization—none."

By order of the Board of Commissioners, D. C., January 11, 1955.

ADMIRAL HOGAN NAMED SURGEON GENERAL OF THE NAVY

Rear Admiral Bartholomew W. Hogan, Medical Corps, U. S. Navy, took the oath of office as Surgeon General of the Navy on February 15 to serve for a period of 4 years. Nominated on January 14, 1955, by President Dwight D. Eisenhower to be Surgeon General of the Navy and Chief of the Bureau of Medicine and Surgery, his nomination was confirmed by the Senate on February 8, 1955. He succeeds Rear Admiral Lamont Pugh, whose term expired at the end of January.

Admiral Hogan is the first native of Massachusetts to hold the office of Surgeon General of the Navy. In 1925 he received the degree of Doctor of Medicine from Tufts College Medical School, Boston, and was awarded the Phi Lambda Kappa Medal for highest achievement while attending medical school.

Appointed a Lieutenant, junior grade, in the Medical Corps of the Navy on June 6, 1925, Admiral Hogan was promoted to Rear Admiral on August 9, 1952.

During 1930 and 1931, Admiral Hogan had postgraduate instruction at St. Elizabeths Hospital, Washington, and in September 1931 became Chief of Neuropsychiatry at the Naval Hospital in Philadelphia. He subsequently served as Assistant Chief of Neuropsychiatry at the Naval Hospital, Washington, with further duty as an Instructor at the Naval Medical School. During this same period, he was an Associate Professor of Psychiatry at Georgetown University School of Medicine. Ordered to the *U.S.S. Relief*, he joined that hospital ship as Neuropsychiatrist and Assistant Chief of Medicine in April 1939, and in the fall of 1940 was detached for duty as Chief of Medicine at the Naval Hospital, Annapolis, Md. He was so serving when the United States entered World War II, December 8, 1941.

ADMIRAL B. W. HOGAN, MC, USN
Surgeon General of the Navy

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In March 1942 he reported as Senior Medical Officer on the *U.S.S. Wasp* and was aboard that carrier when she was torpedoed in South Pacific waters by a Japanese submarine on September 15, 1942. Badly damaged by fires and explosions, and after all damage control had failed, the abandon ship order was given. For heroic service during this action, he was awarded the Silver Star Medal and later the Navy and Marine Corps Medal. He was also awarded the Purple Heart Medal for wounds received in enemy action on September 15, 1942.

After the sinking of the *Wasp*, he returned to the United States, and in November 1942 reported as Assistant Personnel Officer in the Bureau of Medicine and Surgery, Navy Department, Washington. In that capacity he was liaison officer with the Bureau of Naval Personnel for the establishment of the V-12 pre-medical, pre-dental, medical and dental training program. From December, 1943 until January, 1945 he was Executive Officer of the U. S. Naval Hospital, Naval Academy, Annapolis, Md.

During the next several years he completed a number of assignments, which took him to Brooklyn, N. Y., Philadelphia, Bethesda, Md., and Mare Island, Calif. In July, 1951, he became Commanding Officer of the Naval Hospital in Bethesda. In July, 1953 he reported as Fleet Medical Officer, Staff, Commander in Chief, U. S. Pacific Fleet, and Chief of Staff for Medical Matters to the Commander in Chief, Pacific, continuing to serve in that capacity until April, 1954, when he was ordered to duty as Deputy and Assistant Chief of the Bureau of Medicine and Surgery, Navy Department.

He is a Fellow of the American College of Physicians and American Psychiatric Association; diplomate of the American Board of Psychiatry and Neurology; and a member of the House of Delegates of both the American Medical Association and the American Hospital Association. He is an examiner for the American Board of Psychiatry and Neurology and an Associate Professor of Psychiatry, Georgetown University School of Medicine. In 1945 he received the honorary degree of Doctor of Laws from Mt. Saint Mary's College, Emmitsburg, Md., and he received an honorary degree of Doctor of Laws from Villanova College in June, 1954.

Dr. Hogan is author of a number of scientific papers. He was the Editor-in-chief of the "Hospital Corps Handbook," 1953 edition.

"WE CANNOT SACRIFICE PRINCIPLE"*

THOMAS H. ALPHIN, M.D.

Assistant Director, Washington Office, American Medical Association

At the risk of being accused of atavism I should like to say that while the American physician must be always sensitive to his socio-economic environment, he must not stop depending upon those fundamental things which constitute what is called "character." I refer to that quality described by Emerson as "a reserved force which acts directly by presence and without means, a moral order seen through medium of an individual nature—the healthy souls standing united with the Just and the True."

If physicians require of themselves that they continue to be inner-directed by Justice and Truth we may hope to become men of Character. As such Emerson has warned we "shall become the conscience of the society to which we belong." That is a heavy burden and sure to make its bearer the target of much abuse. The still small voice that says "you mustn't" may be a constant companion, but he is not a jolly one. He's a nuisance and he's not a bit more popular when he says, "You know it's your duty to . . . ." (The latter variety often has a predominantly New England ancestry.)

Furthermore, since Emerson made his observation, there has been a change in the scope of the phrase "society to which they belong" beyond the limits of the foresight of a Nostradamus. The Sage of Concord could eat his breakfast at home and his lunch at Boston. The airline that brought me here provides a schedule that would now allow him to have dinner in Paris, breakfast in New York, and arrive in plenty of time for an early family supper in Los Angeles. The society to which Emerson belonged was predominantly that found within 50 miles of his home. The society to which we belong has now extended its borders well beyond the continental United States. Our strategic air command potentially looks over the shoulder of every citizen in the world. Air wings of other nations practice course plotting that can hit Kansas City's new plastic Hereford literally on the nose.

Does this change in time and space invalidate Emerson's observation? What of our position as men of Character on the questions posed by national issues and specifically in dealing with the Federal Government?

If the profession speaks out for the good of the country and rejects special privilege for the few, we may be subjected to vituperative attack. If our position is sound, the attack will not be directed against the question itself or our stand on the question, but frequently against our motives. I believe careful consideration will show that such attacks, if honestly appraised by us, will only strengthen us. If the motives of a few are cited to us we can require that these examine their conscience for their own good and for the good of the order. If the attack results in a fair appraisal before the public of the issues we can ask no more. Jefferson long ago wisely observed that a democracy need not fear as long as the people are informed on the issues. Let him who will beat his drums, howl, scrape, chisel and chip—if we each keep well our share of our profession's honor and integrity, our opponent shall be as the sounding brass and the tinkling cymbal and he shall not prevail against us.

Now as to our dealings with Government. How do the workers in the vineyards along the Potomac keep to the rules? There the grapes can grow very wild! American medicine's active interest in the Federal Government was born of two postulates and operates on two correlated precepts:

1. The medical profession has become thoroughly entangled with a vastly expanding Federal Government. Therefore the medical profession must keep immediately, completely and accurately informed on all governmental matters affecting the practice of medicine.

2. The profession has a duty to the people to be sure that proposals affecting the Nation's health be carefully evaluated before adoption. It must promptly, fairly and honestly present the facts and sound conclusion based upon those facts to our legislators and administrators.

Let us examine this a little more fully. Is our profession heavily involved in the activities of the

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* This is a portion of an address by Dr. Alphin delivered at the 100th Anniversary Celebration of Clay County Medical Society, Excelsior Springs, Missouri, November 4, 1954, and originally published in full in *Missouri Medicine*, 1954, **51,** 1011.

Federal Government? In the Federal budget for this fiscal year we find that one sixth of the total medical bill for the Nation, including everything from baby powder to autopsies, is paid with Federal funds!—the over two billion dollars that Congress appropriated for medical costs represents one tenth of all Federal non-defense expenditures. And I am sure no one of you doubts that you as individuals are personally close to the Government. We have all reached into our pockets to find only the tax-collector's hand.

How about the need for immediate, quick and accurate information for the physicians at home? Congressmen will listen to information supplied by Washington representatives but they act on word from their own people. A rider on an appropriation bill would have had the V.A. selling medical care indiscriminately to veterans, with the patient paying as much of the bill as he felt he could afford. Members of the appropriation subcommittee presenting the rider did not appreciate its full impact, and it was taken to the floor of the House to be defeated there after it was brought to the attention of the members by our profession. This whole fight took only 10 days from start to finish.

In the 83rd Congress, 407 bills of sufficient importance to the health of the Nation to be followed by our office were introduced. Of these only 24 became law and nearly all of those were much changed in the process. When you remember that all bills introduced in both sessions totaled 16,470, you can understand that most congressmen welcome information if it comes from people they have learned they can trust. A most welcome visitor on Capitol Hill is the man who knows what he is talking about and knows it in a few short sentences.

The prompt, fair and honest presentation postulate takes us straight back to the question of Character. Medicine will need representation before Government for all of the foreseeable future. Those who shun medicine's principles have grown to fear its power and are every ready to "view with alarm" and "point with horror." To be successful we must earn and jealously guard the confidence of congressmen and other governmental leaders. We should not indulge in petty partisan politics; we cannot sacrifice principle to expediency; and we must never turn our backs on Truth and Justice. If we continue to hold to these principles we shall always be afforded the opportunity to present our case before the Congress. If our position is taken after careful collection and thoughtful examination of the facts, with our only consideration the ultimate good of our patients (in other words, if we form our conclusions using the methods of good medical practice), then we can be almost sure that the majority of representatives in Government will see the wisdom of our stand.

Should we then expect that eventually our profession's dealings with Government will be simple, smooth and sweet? Perhaps such a time may arrive but I do not expect to see it. I am not sure I would ever want to see it. Certainly I would not want to see it come here as it has come in a country behind the Iron Curtain where we learn—and I quote, "There was no need to investigate the voting records of incumbents before the election—they had all consistently voted 'yes.'" We need to round off our political opinions against those of others, for that is the way of democracy.

Fisher Ames, who was an important conservative figure in this country during the formative days of the Republic, compared the totalitarian state of his day (monarchy) with the Republic in these words: "A monarchy is a merchantman who sails well, but will sometime strike on a rock and go to the bottom; whilst a republic is a raft which would never sink, but then your feet are always in water."

Let us look more closely at Fisher Ames' raft. A raft can be made of any of several types of material which are lighter than water. The best material of which a raft can be made contributes buoyancy because of many small compartments containing air, each capable of floating as a single unit, but each bound closely to its fellow. For stoutest construction each log is bound several times to the adjacent logs, not in a continuous wrapping but with many separate ties. Generally, the bigger the individual buoyant unit, the higher the raft floats in the water. The smaller the units and the heavier the ties, the stouter the raft but the lower in the water and the more often your feet will get wet. There is a lesson for the centralizers here. It is pleasant to float above the waves on big empty oil drums when the weather is calm; but the low-lying log raft with each small unit bearing its individual share of responsibility, while damp even in a smooth sea, is more apt to survive a storm.

Let us not worry about our feet getting wet. The interest of the physicians of the United States in their duty as citizens has been and will be strengthened by repeated immersion into the sea of socioeconomics and government. Let the responsibility for remaining afloat be kept in individual personal integrity rather than in the overcentralized pooling of responsibility. Let us keep strong the ties that bind us into a cohesive profession but let us not sacrifice our individuality. Finally, let us increase the strength and numbers of the ties that bind us as a unit to the other units which make up the raft that is our republic.

DR. STUBBS ELECTED TO BLUE SHIELD COMMISSION

At a meeting held at the Shoreham Hotel, Washington, D. C., January 14, Dr. Donald Stubbs was elected to the Commission of Blue Shield Medical Care Plans to represent District V. The District is composed of 16 Blue Shield Plans in Kentucky, North Carolina, South Carolina, Virginia, West Virginia, Maryland, and the District of Columbia.

For the past 3 years Dr. Stubbs has served as President of Medical Service of the District of Columbia, the local area's Blue Shield Plan, in which nearly a half million persons are enrolled. Nationally, more than 30,000,000 persons now have Blue Shield coverage.

Dr. Stubbs' election to the Commission provides continued representation from the District of Columbia on this important body, inasmuch as Mr. F. P. Rawlings, Jr., Director of Medical Service of the District of Columbia, has served on the Commission for the past 2 years.

Mr. Rawlings, whose term as a member of the Commission expires this year, has actively carried out the Commission's policies and directives from his unusual vantage point in the Nation's Capital; he has served as chairman of the Plan Administration Committee of Blue Shield Plans, and as a member of a special committee appointed to consider Blue Shield objectives in relation to the Government's proposed program for Federal employees' health insurance. Because of activities pertaining to coverage for Federal employees on a national scale, members of the Blue Shield Commission, who are located in the Washington, D. C. area, have a unique opportunity to render invaluable service to Federal employees and Blue Shield Plans. Those who know Dr. Stubbs and are familiar with Blue Shield activities are agreed that his unanimous election as a Commissioner augurs well for the future.

Dr. Stubbs has served on the Board of Trustees of Medical Service for the past 5 years. Like other members of the Board of Trustees, he has devoted long hours and sustained effort to insure the success of Blue Shield on the national, district, and local levels. He has given valued testimony from the floor at numerous meetings of Blue Shield Plans, and last year served as chairman of the Committee on Officers' Reports at the Annual Conference of Blue Shield Plans in New York City. Dr. Stubbs assumes his position as a Commissioner of Blue Shield Plans on March 24, 1955, when the new Commission will meet for the first time.

DONALD STUBBS, M.D.

CAT.

The Blue Shield Commission is composed of 2 Commissioners from each of 12 Districts and 8 Commissioners at Large. Each District elects 2 Commissioners, 1 of whom is a member of the governing Board of a member Plan and one of whom is an administrator of a member Plan. Dr. Stubbs was elected as a member of the governing Board of Medical Service. He is eminently qualified to speak

HOUSE OFFICERS' MEDICAL ESSAY CONTEST

Sponsored by The Medical Society of the District of Columbia

The Medical Society of the District of Columbia invites all residents and interns of hospitals in the District of Columbia to compete in a Medical Essay Contest under the auspices of the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA, the official publication of the Society.

Essays on original research projects (basic or clinical), review articles, or historical treatises of medical subjects may be entered in the Contest.

Prizes totaling $150.00 ($100.00, first award; $50.00, second award) will be given for the best articles submitted in any one year unless in the opinion of the Editorial Board no essays of sufficient merit are submitted to justify an award. Honorable mention may be given other essays. All essays submitted and accepted for publication will become the sole property of the MEDICAL ANNALS.

Essays must be not less than 6 nor more than 20 double-spaced, typewritten, letter-size pages in length and must be submitted not later than March 1, 1956 to

The Editor
Medical Annals of the District of Columbia
1718 M Street, N. W.
Washington 6, D. C.

Further details may be obtained by writing to the Editor. The Editor reserves the right to edit accepted essays as he deems proper.

for physicians in determining Blue Shield policies

The organization of Blue Shield Medical Care Plans subscribes to the belief that state and local Medical Care Plans should be autonomous in their operation so that the needs, facilities, resources, and practices of the areas served by each Plan can be given due consideration. It also has as an objective the advancement of the health and welfare of the public on a national scale by the coördination of methods, coverages, operations, and actuarial data of the individual Plans. In carrying out the mandates and policies determined by the Member Plans, the Commission has done much to stimulate the growth and advancement of Blue Shield Plans in an orderly and responsible manner.

WOMAN'S AUXILIARY NOTES

Senator Karl E. Mundt of South Dakota was the speaker for the February monthly meeting of the Woman's Auxiliary to the Medical Society of the District of Columbia. His talk was on Communism, and we listened attentively as he told us it has now spread to over one half of the world. We are unaware of how it has infiltrated into every field, every branch of activity here in the United States.

Already, Senator Mundt said, there are known to be over 4,000 Moscow-trained workers in America. Their objective, he warned, is to get control of Congress—both the House and Senate, and eventually even the White House (oh yes, their aims are high and they are diligent workers!). To do this, to get control and place more power in the hands of *their* politicians, they are against state's rights and, of course, the people's rights.

At present the American Legion and the Daughters of the American Revolution are their bitterest enemies, because they see through their intentions so clearly. Socialized medicine, the Auxiliary's personal foe, is one of Communism's major aims.

Senator Mundt went on to say that they gain their foothold through infiltration, espionage, subversiveness, and propaganda. Unfortunately, too many of us are not aware of their strength, for both here in America and throughout the world we are losing to Communism.

This is everybody's fight, he told us, and we must each and every one do our part in the combat. As an organization and as a person, we must "get tough."

After the program a short business meeting was

(*Continued on page 158*)

On the Lighter Side

Spring is in the air! You can feel it in your aching legs and in your creaky joints as the sap begins to rise all over. You can smell it as you open the front door in the morning, and you can see it in every bush and tree. Oh, it is just around the corner, there is no doubt about that! And if the thought has not occurred to you, just look at your neighbor, or better still, look at the faces of the people on the street.

When the weather becomes mild, out-of-door activities take on added interest for our common variety of hot-house doctor. The wool and cashmere mufflers that were so snug about our throats during February become a bit stifling, and those great coats that protected our goose-pimply torso from the chilling wintry blasts now hang heavily and hard on our shoulders. Our hats, as nice as they are, become too warm on our forehead and we push them back as far as the hairline allows. Gloves are stuffed into bulging pockets, and we saunter along with coats unbuttoned, inviting the warm, southerly air to penetrate the recesses of our waistcoats. Surely now the day will come when our low supply of energy will be replenished by our enthusiasm for Spring, and then our limitless imaginations will forcibly predominate over our reasoning faculties, and the inevitable will occur.

So what happens? We awaken the next day so stiff and sore that only the urgency of necessity forces us out of the bed and into our clothes to tackle another professional day. Muscles that have remained undiscovered all winter long will torment us with every step and with every motion. Even the sweetness of repose at the day's end cannot shake off the unhappy results of our overdoing.

This column is looking forward to all of this because it means that our medical brothers and sisters will be seeking the pure fresh air of the great out-of-doors, and they will be doing all the many, many interesting things that make grist for this mill to grind each month. If only we could make them talk! What a happy chore this would be.

Chuckles Culled from Here and There: Most women are eternally trying to take off weight, to put it on, or to rearrange it. . . . Many girls are attracted to the simpler things of life—namely—Men. . . . A sensible girl is one who is more sensible than she looks, because a sensible girl has more sense than to look sensible. . . . A man is never so weak as when a woman is telling him how big and strong he is. . . . A wedding ring is like a tourniquet—it stops your circulation. . . .

The two most critical periods of a man's life are when his voice changes and when his choice changes. . . . Charlie Chan says, "Action to save face often failure to use head." . . . One of the nicest things about TV is that it enables you to entertain your guests while you catch up on your sleep. . . . Few women marry the perfect husband—they prefer to do the finishing job themselves. . . . A bachelor is a rolling stone who gathers no boss. . . .

One of the nice features of old age is that you can whistle while you brush your teeth. . . . Nowadays the dollar dinner is served on white or rye. . . . A great doctor is almost always one who has a poor opinion of himself but knows he doesn't deserve it. . . . One reason why talk is cheap is that the supply usually exceeds the demand. . . . You can always spot a well-informed man. His views always coincide with yours. . . . Always listen to the opinion of others. It probably won't do you any good, but it will them. . . .

Boy Scouts become girl scouts at about the age of sixteen. . . . A delegate-at-large is a gentleman who attends a convention without his wife. . . . A school advertised: "Short course in acounting for women." The next day a note reached the school's president. It read: "There is NO accounting for women." . . . Some folks think they are big shots just because they are always exploding. . . . Lots of folks would admit their own faults—if they had any. . . . Other people's troubles are never as bad as ours, but their children are always worse. . . .

Fisherman's Prayer: God grant that I may live to fish until my dying day. And when it comes to my last cast, I then most humbly pray, when in the Lord's safe landing net I'm peacefully asleep, that in His mercy I be judged good enough to keep

J. Earl Kadan, M. D.

News and Personals

MEETINGS—Past and Future

Two important meetings, of particular interest to radiologists, will be held in Washington during the month of April.

The American Radium Society will convene at the Shoreham Hotel, April 20–23. Dr. Ralph M. Caulk is Chairman of the Committee on Local Arrangements.

The Fifth Inter-American Congress of Radiology, sponsored by the American College of Radiology, will meet at the Shoreham Hotel, April 24–29. Advance registration from the United States, Canada, and other American countries is already sufficient to insure a good attendance.

Registration will begin on Sunday, April 24, with inaugural ceremonies in the evening. On Monday, April 25, the scientific session will open with a Symposium on New Trends in Cancer. There will be two other symposia, one on Wednesday on Cancer of the Lung, and the other on Friday, on Isotopes. Tuesday and Thursday forenoons will be devoted to general sessions concerned with various radiological subjects.

The afternoons will be left free for sight-seeing and social affairs. Highlight of the entertainment will be a symphony concert on Wednesday night, at Constitution Hall, by the Philadelphia Symphony Orchestra, Eugene Ormandy conducting.

Local arrangements for the meeting are under the direction of the District Medical Society's Section on Radiology, with Dr. Fred O. Coe as Chairman of the Committee on Local Arrangements. Entertainment for the visiting ladies has been arranged by Mrs. E. A. McPeak, Chairman of the Ladies Local Committee.

General practitioners met in the Medical Society's building, February 24, for the first session in a **series of 10 lectures on cancer detection and treatment.** These meetings, held on Thursday evenings at 8:30 p.m., are sponsored by the Section on General Medicine of the District Medical Society, the Medico-Chirurgical Society, and the District of Columbia Division of the American Cancer Society. They are held for the purpose of informing physicians of the newest trends in cancer detection and treatment and to make "every doctor's office a cancer detection center." Dr. Emerson Day, Director of the Strang Cancer Detection Clinic, Memorial Hospital, New York, was the first speaker.

All of the meetings are being held in the Medical Society's building. The lectures are free to interested physicians and have been approved for postgraduate study credit by the District of Columbia Chapter of the American Academy of General Practice. Washington physicians, specialists in various aspects of cancer research, will give the remaining lectures. The last one is scheduled for May 5.

A Program of Professional Lectures is scheduled for April 1 and 2, under the sponsorship of the D. C. Society for Crippled Children, in the Medical Society's auditorium, which members of the Medical Society are cordially invited to attend.

Dr. Daniel L. Seckinger, Director of Health for the District of Columbia, will preside at the opening session, April 1, at 8 p.m. Following introductory remarks by Dr. William P. Argy, Medical Director of the Society for Crippled Children, and a welcome from Dr. Leon Chatelain, its President, two papers will be presented by staff members of the Department of Health, Education and Welfare.

Dr. Frederic Burke, Professor of Pediatrics, Georgetown University School of Medicine, will preside at the morning session, Saturday, April 2, at 9:15 a.m. Dr. Othmar C. Solnitzky, Professor of Anatomy at Georgetown, will read a paper on "The Agnosia and Apraxia with Particular Reference to Language Formulation and Expression," and Dr.

Leon Eisenberg, of the Children's Psychiatric Service, The Harriet Lane Home for Children, will speak on "Psychiatric Manifestations in the Brain-damaged Child."

Presiding at the afternoon session, 1:30 p.m., will be Dr. Preston A. McLendon, President of the District Medical Society. Both afternoon speakers are faculty members of Georgetown University School of Medicine: Dr. Francis M. Forster, Dean and Professor of Neurology, who will discuss "Personality Problems Associated with Convulsive Seizures," and Dr. Zigmond M. Lebensohn, Associate Professor of Psychiatry, who will talk on "Personality Variants in the Parents of the Handicapped Child."

Physicians are reminded again of the **Seventh Annual Symposium on Recent Advances in the Study of Venereal Diseases,** which will be held in the auditorium of the Department of Health, Education and Welfare on April 28 and 29.

Dr. Josephine Renshaw, Chairman of the Medical Society's Committee on Public Information, announces that the first **Medical News Conference** to be sponsored by her committee is scheduled for April 13 at 8 p.m. Appearing on the program will be members of the Society and prominent Washington newsmen, who will present their views on the handling of medical news. Invitations will be extended to all members of the Society, newspaper reporters, science writers, medical public relations experts, and others interested in this subject. Details will be announced sometime this month.

Dr. Leslie French and staff of the Heart Station, Prince Georges General Hospital, are concluding a two-month **Course on Electrocardiographic Analysis.** This is a postgraduate course, presented periodically, to inform physicians regarding recent advances in electrocardiography and the practical analysis of electrocardiograms. The teaching sessions are held at the Hospital.

The Medical Society's **Section on Ophthalmology** held a dinner meeting, February 2, at the Walter Reed Officers' Club. Dr. Peter C. Kronfeld, Professor of Ophthalmology, University of Illinois School of Medicine, Chicago, was the guest speaker. His topic for presentation was "Tonometry."

The Section will meet next on April 12 at the Kennedy-Warren; **Dr. Frank D. Costenbader** will be the guest speaker.

The Washington Academy of Surgery will hold its fourth meeting this year at the Kennedy-Warren, April 11, with dinner at 7 p.m. for members and guests. Dr. Frederick A. Coller, Professor and Head of the Department of Surgery, University of Michigan, will address the meeting.

The Jacobi Society of Washington met at the Washington Hotel, February 21. Following dinner at seven, members listened to Mr. Michael Straight, Editor of *New Republic Magazine*, talk on "Behind the Shift in the Kremlin."

There was no March meeting. The annual banquet of the Society will be held on Saturday, April 2, in the Presidential Ballroom of the Hotel Statler. Reservations for the banquet are being accepted by Dr. Saul Schwartzbach, 1726 Eye Street, N.W.

Members of the **Washington Psychiatric Society and the Washington Metropolitan District Branch of the American Psychiatric Association** have voted to combine organizations, effective July 1, 1955. The new organization will be known as The Washington Psychiatric Society, a District Branch of the APA.

At the meeting of the Washington Psychiatric Society, January 14, the following officers were elected:

Dr. Marshall deG. Ruffin, *President*; Dr. Winfred Overholser, *President-elect*; Dr. Marvin L. Adland, *Secretary*; and Dr. Norman Taub, *Treasurer*.

These officers were also unanimously elected as officers of the Metropolitan District Branch.

Dr. A. P. Noyes addressed members on the subject, "Washington Psychiatry in the 1920's." Along with his reminiscences he credited St. Elizabeths Hospital and its many distinguished staff members with great influence on psychiatry, both locally and nationally.

Dr. Gardner Murphy, Director of Research, Menninger Foundation, Topeka, Kansas, addressed the Society, February 11. After presentation of the topic, "Perception and Personality," discussion of Dr. Murphy's paper was opened by Dr.

David Shakow and Dr. Leonard Duhl, both on the staff of the National Institute of Mental Health.

The Sixth Annual Regional Meeting of the American College of Physicians, held in the Medical Society's auditorium, February 12, was an excellent meeting well attended. Dr. John Minor, Governor for the District of Columbia, presided. Members of the Medical Society who contributed to the scientific program were Drs. George Schreiner, John B. Johnson, Clarence S. Greene, Charles E. Rath, Jack J. Rheingold, Charles S. Christianson, Robert H. Parrott, James J. Feffer, and James P. Mann.

Dr. Schreiner presented the first scientific paper on "Postpartum Acute Renal Insufficiency," and Dr. Johnson, with Drs. Greene and Jean Gross as co-authors, the second, on "Intractable Heart Failure—Influence of Hypertension." Dr. Christianson's paper was entitled "Agammaglobulinemia as a Factor in Recurrent Respiratory Infection." Dr. Feffer read a paper, co-authored by Dr. Mann, on "Chronic Pulmonary Emphysema: Physiological Basis for a Rational Therapy." Drs. Rath and Rheingold took part in a Panel Discussion on Newer Aspects of Anemia. A paper on "Pharyngo-Conjunctival Fever—a Newly Recognized Disease" was authored by staff members of the Clinical Center and National Institutes of Health, including Dr. Parrott.

Responsible for the excellent scientific program were Dr. Harold Jeghers, Chairman, Dr. Monroe J. Romansky, and Dr. Edward D. Freis. Dr. J. Lawn Thompson was Chairman of the Committee on Arrangements.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia held its regular meeting, January 24, 1955.

At the request of the Washington Academy of Sciences to nominate a successor to Dr. Fred O. Coe as Vice President of the Academy representing the Society, the Board nominated Dr. Coe to succeed himself.

President McLendon proposed that Dr. George Maksim be designated the Society's representative on the District of Columbia Committee for the White House Conference on Education.

Dr. Maksim was also selected to represent the Society on the Evaluation Committee of the United Community Services. This committee will evaluate the organization's procedures with special attention to campaigns, budgets and public health.

The Secretary reported that he had accepted the appointment as Chairman of the Committee on Medical Costs of the Family and Child Welfare Section of United Community Services. The purpose of the committee is to study the family budget guides as they relate to health services.

Dr. W. Leroy Dunn was appointed to represent the Society on the Special Review Committee to the Director of Public Health on Practices and Policies of the TB Control Program.

Dr. Julius Epstein was appointed an associate member of the Obstetrical Board, representing Sibley Hospital.

President McLendon submitted the following appointees to committees:

Dr. Benjamin Golden, to the Medical Bureau Committee

Dr. William B. Walsh, to the Committee on Public Information

Dr. Oswald V. Todd, to the Subcommittee on Mental Health, succeeding Dr. Harold Stevens, who resigned.

Dr. W. Ross Morris, President-elect of the Society, submitted the name of Dr. Ralph M. Caulk as Chairman of the Program Committee for 1955–56. The Board approved his choice.

Traditional Easter Sunrise Services will be held this year in the natural amphitheater setting of the formal garden at Walter Reed Army Medical Center, beginning at 7:30 a.m., Sunday, April 10. There will be music by the Calvary Baptist Church Choir and the United States Army Band. Washington's largest "Massing of the Colors" ceremony will precede the religious service.

The Commanding General, Major General Leonard D. Heaton, has issued a cordial invitation to all physicians to join Walter Reed's patient and duty personnel in Easter worship again this year.

A letter has gone out to all members of the Medical Society to determine what interest there is among doctors in forming a **Doctors Symphony Orchestra.** At the request of Dr. Isadore Alpher, who directed the Doctors Orchestra at its initial appearance at the First Interstate Scientific Assembly in November, for endorsement of such a project, the Executive Board gave its approval at its meeting, November 22, 1954. A group of interested physicians met in the Medical Society's building, January 27, and appointed a Temporary Committee on Organization.

The Committee voted to canvass the members of the Society for participants. Included in the personnel of the orchestra will be wives of members, members of county medical societies in the Washington Metropolitan Area and physicians stationed in the area with the Federal Government, and qualified members of the District of Columbia Dental and Pharmaceutical Societies. Members of the Temporary Committee are Dr. Richard H. Todd, *Chairman*, and Drs. Alpher, Samuel Dessoff, Maurice H. Friedman, Robert H. Harmon, Isidore Lattman, Thomas M. Leonard, and Theodore Wiprud.

Physicians in the District of Columbia will answer **questions about cancer**, submitted to them by the public, over the telephone every Monday night from 7:00 to 8:00 p.m., starting March 7, and continuing through the month of May. The telephone number is Executive 3-3690, office of the District of Columbia Division, American Cancer Society, Inc.

Dr. Peter D. Comanduras, Chairman of the Cancer Society's Professional Education Committee, has been instrumental in organizing the project. "These physicians will not prescribe for anyone," Dr. Comanduras emphasized. The two main objectives of this telephone answering program is to stimulate early detection, and to direct people to the various cancer facilities in the city so that they may take advantage of them.

The resignation of **Vice Admiral Joel T. Boone, MC, USN, (Ret.), as Chief Medical Director of the Veterans Administration** a position he had held since March 1, 1951, was announced, February 2. Dr. Boone, who was recently elected to Honorary membership in the District Medical Society, thus retires from public service, to which he has devoted nearly 41 years of his life.

Succeeding Admiral Boone, effective March 1, was **Dr. William S. Middleton,** Dean of the University of Wisconsin School of Medicine since 1935. An overseas veteran of both World Wars, he has been associated with the veterans medical program in a variety of part-time consultive capacities. During World War II he was the chief consultant for medicine in the European Theater of Operations. He was discharged as a Colonel, a rank he still holds in an honorary capacity with the U. S. Army Reserve.

WILLIAM S. MIDDLETON, M.D.
Chief Medical Director of VA

Dr. Middleton was one of the original members of the VA Special Medical Advisory Group, which was established by law soon after World War II to advise the VA Administrator and Chief Medical Director in regard to the care and treatment of disabled veterans. It was this group that was instrumental in establishing the association between the VA and leading medical schools of the Nation. At the time of his appointment, Dr. Middleton was a member of the national VA Medical Advisory Committee on Education, and Chairman of the Dean's

Committee affiliated with the Madison, Wisconsin VA Hospital.

Dr. Middleton received his medical degree from the University of Pennsylvania in 1911. He joined the staff of the University of Wisconsin School of Medicine in 1912 as an Instructor of Clinical Medicine; he became an Assistant Professor in 1915, an Associate Professor in 1925, and Dean of the Medical School in 1935.

The 1955 Cancer Crusade of the District of Columbia Division of the American Cancer Society will get under way in April, which is National Cancer Month. The national goal for funds is $24,000,000, of which $279,000 is the Washington quota. In an editorial in this issue of the ANNALS, Dr. Peter D. Comanduras, Chairman of the Professional Education Committee, urges physicians to lend their support to this campaign as they have in the past.

Attention is called to the fact that the services and information center of the D. C. Division of the American Cancer Society has been moved to 810 18th Street, N.W., on the first floor of the Otis Building. The telephone number remains the same, Executive 3-3690.

A committee of lay and medical leaders met in the Medical Society's building, January 26, for the purpose of discussing the possibilities of building a **private chronic disease hospital for the District of Columbia.** In addition to officers of the Medical Society, the meeting was attended by representatives of the private hospitals of the District, the District Health Department, Board of Trade, and Federation of Citizens' Associations.

Dr. Preston A. McLendon, President of the Medical Society, presided at the meeting. Dr. Herbert P. Ramsey discussed the need for a chronc disease hospital and made some suggestions for solving the problem. Dr. McLendon has appointed a committee to study the situation.

Children's Hospital received the The Service to Mankind Award of the Sertoma Club of Washington, January 28, for its outstanding achievement in treating poliomyelitis patients. The occasion was the first anniversary banquet of the Club, an international organization of professional and business people who are pledged to community service. The banquet was held at the National Press Club.

Dr. John M. Fernald, of Los Angeles, international President of Sertoma, presented the award, which was accepted on behalf of Children's Hospital by Mrs. M. L. C. Maguire, chief therapist; Miss Josephine Braz, of the nursing staff; and Dr. Milton Glatt.

Mr. Richard M. Loughery, Assistant Administrator of Garfield Hospital since February, 1953, has been appointed Administrator, succeeding Mr. Leo G. Schmelzer, who resigned to become Administrator of the Wilmington (Delaware) General Hospital. Prior to his Washington assignment, Mr. Loughery served for 7 years on the staff of the Methodist Hospital in Indianapolis as personnel director and senior administrative assistant. He is a graduate of Indiana University and a member of the American College of Hospital Administrators.

PERSONALS

The Washington School of Psychiatry is currently sponsoring two lecture series. **Dr. Winfred Overholser,** Superintendent of St. Elizabeths Hospital, is giving 8 weekly lectures on Psychiatric Jurisprudence. The series, which began on February 7, is intended primarily for physicians, lawyers, and other professional workers engaged in related fields.

Adjustments to Aging is the subject of a series of 3 lectures this month by **Dr. Edward J. Stieglitz.**

These courses are similar to those presented last year by Dr. Overholser and Dr. Stieglitz.

Dr. Francis M. Forster, Dean and Professor of Neurology at Georgetown University School of Medicine, participated in the Pan American Congress on Psychiatry and Neurology in Havana, Cuba, late in January.

He presented the experimental work which has been carried on at Georgetown by Dr. Jorge Huertas and himself. This work has resulted in the production of experimental epilepsy in monkeys; it is the first time that temporal lobe seizures have been produced in animals.

Dr. Forster also lectured, January 31, at the University Hospital of the National University of Havana on "The Diagnosis and Treatment of Epilepsy."

Dr. Harold Jeghers, Professor and Head of the Department of Medicine, Georgetown University School of Medicine, attended the 51st Annual Congress on Medical Education and Licensure at the Palmer House, Chicago, February 5–8. With Dr. John Butler, Director of Medical Education, St. Mary's Hospital, Rochester, Minn., and Dr. John O'Brien, Director of Medical Education, Mercy Hospital, Buffalo, New York, he described "An Experiment in Making the Hospital a Graduate Medical Center—a Preliminary Report."

A pleasant evening honoring **Dr. Daniel F. Lynch,** President of the American Dental Association, was arranged by the D. C. Dental Society, and was held in the Presidential Ballroom of the Hotel Statler, February 14.

Dr. David J. Fitzgibbon was toastmaster. Dr. Karl H. Wood, President of the Dental Society, presented Dr. Lynch with a testimonial scroll and an engraved watch on behalf of the dentists of Washington. The Dental Reserve Officers Group of the Navy also recognized Dr. Lynch and presented him with a plaque in recognition of "his faithful service and contributions to dentistry during World War II." The presentation was made by Dr. Robert W. Bolwell, Dean of the Graduate School of George Washington University.

Dr. Preston A. McLendon, President of the District Medical Society, was among the honored guests. Dr. Lynch is an Associate member of the Medical Society.

Dr. W. Montague Cobb, Professor and Head of the Department of Anatomy of Howard University School of Medicine, has been elected a Vice President of the American Association for the Advancement of Science and Chairman of Section H (Anthropology) for 1955.

Dr. Cobb has been a Fellow of the AAAS since 1938 and a member of the Council, its governing body, since 1953. He is currently Vice President of the American Association of Physical Anthropologists and was an Associate Editor of the *American Journal of Physical Anthropology,* 1944–48. From 1949 through 1951 he was President of the Anthropological Society of Washington. In July, 1954 he was the official representative of the American Association of Anatomists at the Third International Gerontological Congress in London, England.

Dr. Thomas H. Alphin, Assistant Director of the Washington Office of the American Medical Association for the past two years, has been appointed Assistant Dean and Associate Professor of Anatomy of the School of Medicine at the University of Missouri in Columbia. He assumed his new position, March 1.

THOMAS H. ALPHIN, M.D.

Dr. Alphin, a native of Maryland, graduated from Washington and Lee University in 1936, with a degree in science. He secured his Master's degree from the University of Virginia in the fields of biology and genetics in 1938, and the same year enrolled as a medical student in the same University. From 1942 to 1947, along with his medical studies, he taught anatomy at the University of Virginia, receiving his degree in medicine in 1947. For the next two years he was Assistant Professor of Anatomy at Virginia, and in 1950–51, Assistant Chief Medical Examiner for the Commonwealth of

Virginia. In 1951 he was appointed Regional Medical Officer, Federal Civil Defense Administration, with offices in Richmond, and he held various posts in the Civil Defense program until his appointment to the Washington Office of the AMA. He has continued as consultant in Chemical Warfare to the Federal Civil Defense Administration.

Dr. Alphin became an Active member of the District Medical Society in 1953. This issue of the MEDICAL ANNALS contains an article by Dr. Alphin which gives some of his philosophy on the responsibility of the physician as an advisor in the Federal legislative program.

Dr. Daniel L. Seckinger, Director of Public Health for the District of Columbia, addressed the Metropolitan Health Officers' Association, January 26, at a luncheon meeting at the Washington Golf and Country Club. Dr. Seckinger stressed the need for civil defense measures in the light of political developments in the Far East.

Dr. Donald Stubbs was a guest speaker at the 18th Annual Meeting, March 7–10, of the New Orleans Graduate Medical Assembly, which is one of the oldest general medical assemblies in the country. He presented three papers during the meeting: "Controlled Hypotension," "Hypothermia in Anesthesia," and "The Present Status of Regional Anesthesia."

Dr. Stubbs was also invited to address the Louisiana State Society of Anesthesiologists in New Orleans, March 8. "The Gap between Clinical Practice and Research" was the topic he discussed.

Dr. William F. Burdick and Dr. Roger O'Donnell have been appointed to the first Men's Advisory Board to the Florence Crittenton Home. The 12-member Board is made up of doctors, lawyers, and other civic-minded leaders in Washington. Dr. Burdick has served as pediatrician to the Home for the past 7 years.

Dr. Garnet W. Ault was in Providence, Rhode Island, March 3–5, attending the Sectional Meeting of the American College of Surgeons at the Sheraton-Biltmore. On March 4 he presented a paper before the meeting on "Cancer of the Rectum."

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
January 11	Dr. Julius Schreiber	The Emotionally Healthy Family	Washington Hebrew Congregation
January 18	Dr. Julius Schreiber	Mental Health and the Social Environment	Independent Lodge
January 24	Dr. R. P. Nenno	Mentally Retarded Children	Child Welfare Seminar, Department of D. C. American Legion and Auxiliary
January 26	Dr. Addison M. Duval	Mental Health	
February 4	Dr. C. Herbert Marshall	Our Role in World Affairs	Veterans Memorial YMCA of Arlington, Va.
February 6	Dr. Julius Schreiber	Emotional Problems of Young Adults	Young Adults Forum, Washington Hebrew Congregation
February 8	Dr. Richard T. Sullivan	Newer Drugs	Metropolitan Washington Industrial Nurses Association
February 15	Dr. Julius Schreiber	The Psychodynamics of Prejudice	Masonic Lodge, Takoma Park, Md.
February 22	Dr. Leonard Scheele	Cancer Research	Cured Cancer Club

Dr. Jeanne C. Bateman, consultant in oncology to Garfield Memorial Hospital and St. Elizabeths Hospital, has been appointed a consultant in oncology to the Army Medical Corps. She will assist in the preparation of a bibliography on the chemotherapy of cancer.

Dr. Bateman is in Stockholm, Sweden, this month at the invitation of Dr. Sven Hultberg, Director of Karolinska Institute. She will discuss her work in cancer chemotherapy at the Radiumhemmet in Stockholm. While in Europe she will visit cancer hospitals in Germany and Italy.

On February 1, at the monthly meeting of the Prince Georges County Medical Society, she discussed the treatment of cancer with new chemotherapeutic agents.

Drs. Harold R. Downey, L. Conner Moss, and G. Victor Simpson, of the staff of Episcopal Eye, Ear and Throat Hospital, **and Dr. Lorenz E. Zimmerman,** Chief, Ophthalmic Pathology Section, Armed Forces Institute of Pathology, were among the faculty members which conducted a three-day postgraduate course in ophthalmology early in February at the Walter Reed Army Medical Center. More than 150 civilian and military eye specialists from many parts of the United States and foreign countries attended the course. The course was presented under the direction of Colonel John H. King, Jr., Chief of the Ophthalmology Service, Walter Reed Army Hospital.

Dr. Lawrence E. Putnam, Associate Medical Director, Antibiotics Branch, Division of Medicine, Food and Drug Administration, was co-author of a paper presented before the 14th VA-Army-Navy Conference on the Chemotherapy of Tuberculosis, February 9. The paper described a new antibiotic, "Cycloserine," which appears to hold promise in the treatment of tuberculosis and other infections.

Dr. J. Ogle Warfield, Jr. presented a paper on "Ulcerative Colitis" before the regular monthly dinner meeting of the Medical Arts Society, February 10, at the Kennedy-Warren.

Dr. Robert U. Cooper addressed the Richmond Dental Society, February 17, on "What Is Today's Best Investment?"

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, April 25, 1955.

For Active Membership

Parker Sturgis Dorman, University of Maryland—1947
Peyton R. Evans, Jr., University of Virginia—1943
Thomas M. Gocke, University of Wisconsin—1947
Willard F. Jones, Howard University—1947
Marvin Earl Perkins, Harvard University—1946
Joseph O. Romness, Northwestern University—1949

For Associate Membership

James L. Lauback, Georgetown University—1951
Nell K. Levy, University of Cincinnati—1948
Joseph A. Sabri, American University of Beirut, Lebanon—1946
Peter Soyster, George Washington University—1948

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, January 24, 1955, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Clarence E. Bunge, 2023 Belmont Road, N.W.
Wilder P. Montgomery, 915 Florida Avenue, N.W.
William F. Schmidt, 1608 V Street, S.E.
John E. Smith, 6202 Greentree Road, Bethesda, Md.
Francis L. Wenger, George Washington University Hospital

Associate Members

Neville K. Connelly, 1150 Connecticut Avenue, N.W.
Josephine G. Kety, 3040 Idaho Avenue, N.W.
Elliot Migdal, 1442 Kanawha Street, Hyattsville, Md.
Bertram C. Snyder, 1003 Quebec Street South, Arlington, Va

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Physician in the Courtroom. Lester Adelson, M.D.; Clinton Dewitt, LL.B.; Samuel R. Gerber, LL.B., M.D.; and Alan R. Moritz, M.D. Edited, with Introduction and Notes by Oliver Schroeder, Jr., LL.B. Price, $2.00. Pp. 99. Cleveland: Press of Western Reserve Univ., 1954.

Reactions with Drug Therapy. Harry L. Alexander, M.D., Emeritus Professor of Clinical Medicine, Washington University Medical School; former Editor of the *Journal of Allergy*. Price, $7.50. Pp. 301, with 33 illustrations. Philadelphia: Saunders, 1955.

Peripheral Vascular Diseases, 2nd ed. Edgar V. Allen, B.S., M.A., M.D., M.S. in Medicine, F.A.C.P., Section of Medicine, Mayo Clinic; Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota; Diplomate of the American Board of Internal Medicine; Nelson W. Barker, B.A., M.D., M.S. in Medicine, F.A.C.P., Section of Medicine, Mayo Clinic; Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota; Diplomate of the American Board of Internal Medicine; Edgar A. Hines, Jr., B.S., M.A., M.D., M.S. in Medicine, F.A.C.P., Section of Medicine, Mayo Clinic; Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota; with associates in the Mayo Clinic and Mayo Foundation. Price, $13.50. Pp. 825, with 316 illustrations, 7 in color. Philadelphia: Saunders, 1955.

Public Relations in Medical Practice. James E. Bryan, Administrator, Medical-Surgical Plan of New Jersey; formerly Executive Secretary, Westchester County Medical Society; Executive Secretary, New York County Medical Society; Executive Officer, The Medical Society of New Jersey; Chairman, Medical Society Executives Conference. Foreword by Louis H. Bauer, M.D., F.A.C.P., Secretary-General, The World Medical Association; Chairman of the Board, United Medical Service of New York; President, American Medical Education Foundation; Past President, American Medical Association. Price, $5.00. Pp. 301. Baltimore: Williams & Wilkins, 1954.

Handbook of Medical Treatment, 4th ed. Edited by Milton J. Chatton, A.B., M.D., Director of Medical Institutions, Santa Clara County, California; Superintendent of Santa Clara County Hospital, San Jose, California; Assistant Clinical Professor of Medicine, University of California School of Medicine, San Francisco; Sheldon Margen, M.A., M.D., Associate Research Biochemist, Department of Physiological Chemistry and Clinical Instructor in Medicine, University of California School of Medicine, San Francisco; and Henry D. Brainerd, A.B., M.D., William Watt Kerr Associate Professor of Clinical Medicine, University of California School of Medicine, San Francisco; Visiting Physician, Chief of Medical Service, San Francisco Hospital, San Francisco. Price, paper, $3.00. Pp. 575. Los Altos, Calif.: Lange Medical Publishers, 1954.

Medical Care for Tomorrow. Michael M. Davis, Ph.D. Price, $6.50. Pp. 497. New York: Harper, 1955.

The City of Hope. Samuel H. Golter. Price, $3.50. Pp. 177. New York: Putnam, 1954.

Hugh Roy Cullen—A Story of American Opportunity. Ed Kilman and Theon Wright. Illustrated by Nick Eggenhoffer. Price, $4.00. Pp. 376. New York: Prentice-Hall, 1954.

WILLIAM CLARENCE GWYNN, M.D.

(1873–1955)

Dr. William C. Gwynn, a Life member of the Medical Society of the District of Columbia since 1941, died, February 6, 1955, at the Georgetown University Hospital, where he had served as attending physician for nearly 50 years. He lived at 1514 30th Street, N.W.

He entered the hospital as a patient, December 26. His wife, the late Louise Beall Gwynn, was a constant visitor at his bedside until her sudden death, which preceded his by three weeks. They had been married 52 years.

Born in Georgetown, D. C., November 10, 1873, Dr. Gwynn attended St. John's and Georgetown Colleges and was graduated from the Medical School in 1898. He was the first student to serve his internship at the old Georgetown Hospital. He was appointed attending physician in 1904 and retired in 1951.

In 1925, on the 75th anniversary of the Georgetown Medical School, Dr. Gwynn was awarded an honorary Master of Arts degree; he was given the University's Vicennial Medal in 1951.

He was a member of the American Medical Association, a member of the old Medical Association of the District of Columbia and of the District Medical Society, the latter since 1902. He was a Director of the Riggs National Bank and a charter member of the University Club.

Surviving are three sons, Dr. Henry B. Gwynn, of Mobile, Ala., an Associate and former Active member of the Medical Society, William C. Gwynn, Jr., of Akron, Ohio, and John L. Gwynn, of Chicago; a daughter, Mrs. Frederick Drake, of Easton, Conn.;

a sister, Mrs. Johnson Hellen, of Washington; and a brother, Colonel Harry M. Gwynn, of Annapolis, Md.

MARVIN McDUGALD McLEAN, B.S., M.D.

(1900–1954)

Commander Marvin McDugald McLean, MC, USN, who formerly practiced medicine in Washington, died, December 21, 1954, at the Naval Hospital in Bethesda, Md. He resided at 1418 Newton Street, N.E.

Born in Washington, D. C., September 1, 1900, Dr. McLean was the son of Marvin M. and Maggie Young McLean, who survive him. His father is a veteran civic leader and a retired Government attorney.

Dr. McLean was educated at Central High School and at Princeton University, from which he received his degree, Bachelor of Science, in 1923. He secured his medical degree from Johns Hopkins University in 1927.

Dr. McLean practiced medicine in Washington from 1930 until 1939. He was commissioned Lieutenant Commander in the Medical Corps of the U.S. Naval Reserve in 1940. He had been stationed in Cuba, at Key West and other posts in Florida, and in the Palau Islands in the Pacific during World War II. He was transferred to the Regular Navy in 1947. He served at the Navy Yard both in Washington and in Philadelphia. He was on duty at the Naval Ammunition Depot in Oahu, T. H., from May until November, 1954, when he was returned to the United States for medical treatment.

Dr. McLean was elected to Active membership in the Medical Society of the District of Columbia in 1931; he transferred to Associate membership in 1941. He was also a member of the American Medical Association and the Johns Hopkins Medical Society.

He was a member of Brookland Methodist Church, Temple-Noyes Masonic Lodge, the Princeton Club, Central High "C" Alumni, and Phi Chi medical fraternity.

Besides his parents, he is survived by his wife, Mrs. Marie Kehoe McLean, and two sons, Paul Marvin and Richard Young McLean, living at home; a brother, John H. McLean, and three sisters, Mrs. Marjorie Scott, Mrs. Mary A. MacLeod, and Miss Ruth McLean, all of Washington.

CHARLES MARION GRIFFITH, M.D., F.A.C.P., F.A.C.S.

(1882–1955)

Dr. Charles M. Griffith, retired Manager of Veterans Administration (Mount Alto) Hospital and former Director of Medical Services for the Veterans Administration, died, December 19, 1954. His home was at 10210 Sutherland Road, Silver Spring, Md.

Dr. Griffith, born in Jasper, Tennessee, in 1882, graduated from the University of Tennessee College of Medicine in 1908. He practiced medicine in Jasper and Tullahoma, Tenn., until World War I. During the War he served with the Army Medical Corps as a Captain in the 28th Division. He participated in the Verdun, Meuse-Argonne, and Metz campaigns, and received special commendation for his services.

He was affiliated with the U.S. Public Health Service until 1924, when he transferred to the VA. In this post he directed standardization of veterans hospitals under the joint sponsorship of the Bureau and the American College of Surgeons. He was Director of Medical Services, the top medical post in VA, from 1931 to 1945, when he became Manager of Mount Alto. He retired from this position in December, 1951.

Dr. Griffith was a Fellow of the American College of Surgeons and the American College of Physicians. He was President of the Association of Military Surgeons in 1936. He was a member of the American Legion and Veterans of Foreign Wars.

His wife, Mrs. Nell Kelly Griffith, survives him together with a son, Lt. Charles M. Griffith, Jr., in the U. S. Air Force, and two daughters, Mrs. Nell G. Cocanougher, Fort Sheridan, Ill., and Mrs. Marian G. Hoverstadt, Fort Worth, Texas.

Radioisotopes in Heart Disease—Duffy

(*Continued from page 115*)

8. Prinzmetal, M., Corcday, E., Spritzler, R. J., and Flieg, W.: J.A.M.A., 1949, **139**, 617.
9. Quimby, E. H.: New England J. Med., 1955, **252**, 1.
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Nausea and Vomiting of Uremia—Schreiner, Tanenbaum and Berman

(*Continued from page 118*)

Summary

1. With the increased longevity of severely uremic patients severe nausea and vomiting becomes a harassing and life-threatening complication.

2. The causes and principles of management of uremic vomiting are discussed.

3. Chlorpromazine, a new antiemetic agent, was successfully used in the control of nausea and vomiting in 15 severely uremic patients. No serious adverse effects were noted from short-term administration.

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Pain in Upper Urinary Tract—Stirling

(*Continued from page 126*)

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Marfan's Syndrome—Gilston

(*Continued from page 129*)

Summary

Some of the prominent features of Marfan's syndrome have been pointed out. A family, 4 members of which were affected, is presented to highlight some of these features.

In addition to these documented cases, 5 other members of the family have suggestive histories. The grandmother's stature was consistent; the manner of death of the brother is reminiscent of dissecting aneurysm; an infant daughter could have had the skeletal abnormality, and her manner of death is compatible with cardiac death; a living infant daughter has an aortic systolic murmur, and an infant grandson has multiple hernias.

It is hoped that an awareness of the full-blown complex will provide a stimulus to search out the incomplete forms and perhaps remove this interesting syndrome from the list of rare diseases.

Woman's Auxiliary Notes

(*Continued from page 146*)

held and a nominating committee elected.

The usual excellent buffet luncheon was served following the business meeting to a record attendance.

Mrs. Albert E. Marland
Publicity Chairman

MEDICAL ANNALS
of the
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VOLUME XXIV *April,* 1955 NUMBER 4

MEDICAL TREATMENT OF THYROID DISEASES*

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THE major diseases of the thyroid gland which confront the physician are, in order of frequency, hyperthyroidism, myxedema, and thyroiditis. Although in most cases hyperthyroidism cannot be definitely treated by medical means, it is the responsibility of the internist to bring about a euthyroid state before the final phase of treatment is undertaken, whether it is thyroidectomy or the administration of radioactive iodine. Regardless of the etiology of myxedema, whether it be spontaneous, postoperative, as an aftermath of thyroiditis, after radiation or from other causes, this condition will respond satisfactorily to adequate administration of thyroid. Thyroiditis may require medical treatment if pain is present or, as mentioned, if myxedema develops as a result of loss of functioning thyroid tissue. Occasionally surgical intervention is necessary in patients with suppurative thyroiditis, when confirmation of the diagnosis by biopsy is required or when the goiter is sizable or causes pressure symptoms.

HYPERTHYROIDISM

In approaching the problem of the treatment of hyperthyroidism it is essential that a careful distinction be made of the type of thyroid disease which is present. Although some thyroidologists have been slow to accept the thesis of H. S. Plummer, clinical experience indicates that there are two distinct types of hyperthyroidism which vary widely in their clinical manifestations and responsiveness to treatment. Although Graves' disease or diffuse goiter with hyperthyroidism, or, as we term it, primary hyperthyroidism, and adenomatous goiter with hyperthyroidism result in goiter formation, each type produces distinctly different signs and symptoms, and furthermore, each disease responds differently to the various antithyroid measures available, whether they be medical, surgical, or radiologic.

This variation in responsiveness of the two types of hyperthyroidism is indicated in table 1. Since the advent of the newer antithyroid agents physicians have tended to forget the great effectiveness of iodine. When Lugol's solution is first given to a patient with Graves' disease, improvement can be predicted and occasionally, if the hyperthyroidism is mild and the goiter small, a euthyroid state may result. Administration of iodine to a patient who has an adenomatous goiter with hyperthyroidism is not beneficial except in the rare instance in which both diseases coëxist. When a patient with Graves' disease is given one of the antithyroid drugs in a daily dose known to be effective, for instance, 300 mg. of propylthiouracil, the basal metabolic rate will decrease approximately 1 per cent per day. In adenomatous goiter with hyperthyroidism, a period of 2 to 3 days, using the same dosage, is required to accomplish an equal decrease.

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* Delivered at the First Interstate Scientific Assembly of the Medical Society of the District of Columbia and the Medical Society of Virginia in Washington, D. C., November 2, 1954.

TABLE 1

Hyperthyroidism

TREATMENT	GRAVES' DISEASE	ADENOMATOUS GOITER WITH HYPERTHYROIDISM
Iodine		
Response	Yes	No
Antithyroid drugs		
Response	BMR$\downarrow$ 1%/day	BMR$\downarrow$ 1%/2–3 days
Myxedema	Yes	No
I^{131}		
Response	6 wks. to 3 mos.	5 to 6 mos.
Dose	6 to 9 mc	16 mc. to 200 mc.
Myxedema	10+ %	Rare
Subtotal thyroidectomy		
Recurrence	2%	None
Myxedema	3%	Rare

In either condition, but especially in adenomatous goiter, the decrease will be delayed if iodine has been administered previously. The prolonged use of an antithyroid drug in a patient with Graves' disease will cause myxedema, but in a patient who has adenomatous goiter with hyperthyroidism such prolonged treatment does not lead to myxedema. This is an unexplained phenomenon and is similar to the failure of antithyroid agents to cause myxedema in normal individuals.

When a therapeutic dose of radioactive iodine is given to a patient with Graves' disease, response will first be noted in 6 weeks and will reach the maximum in 3 months. In the patient with adenomatous goiter 5 to 6 months will elapse before any improvement can be expected. Experience has demonstrated that the therapeutic dose of radioactive iodine required to cure patients with Graves' disease ranges from 6 to 9 mc., whereas in adenomatous goiter the dosage range is very wide and results are completely unpredictable. Myxedema will follow even conservative doses of radioactive iodine in more than 10 per cent of patients with Graves' disease, but it is a rare complication even after high dosage in patients with adenomatous goiter. In Graves' disease the goiter is usually reduced in size, whereas in adenomatous goiter the thyroid remains enlarged.

After radical subtotal thyroidectomy in patients with Graves' disease the recurrence rate is approximately 2 per cent, with myxedema developing in 3 per cent of cases. In adenomatous goiter with hyperthyroidism, recurrence or myxedema is practically never observed after subtotal thyroidectomy.

This widely different response of Graves' disease and of adenomatous goiter with hyperthyroidism to the available methods of treatment makes it necessary to treat these two conditions in a different manner if complete cure is to be obtained. It is unfortunate that several schools of thought have developed among groups interested in hyperthyroidism, which would limit treatment to one procedure; one group favors thyroidectomy, one the antithyroid drugs, and one the use of radioactive iodine. It is obvious, however, from wide experience that careful, individualized treatment is necessary to obtain a favorable result.

A number of effective therapeutic procedures are available for the treatment of patients with Graves' disease (table 2). It must not be forgotten that Lugol's solution is a very useful drug. Patients who have mild hyperthyroidism with small goiters and patients with recurrent hyperthyroidism may be brought to a euthyroid state by the daily administration of 10 drops of Lugol's solution, and apparent cure or prolonged remission may result, although maintenance treatment with Lugol's solution is necessary in some cases to keep the disease under complete control. Lugol's solution alone may be used in the preparation for thyroidectomy, but it has its limitations. A euthyroid state is a prerequisite to thyroidectomy, and it is not likely that Lugol's solution alone will be effective in accomplishing this in those patients selected for thyroidectomy.

TABLE 2

Therapy of Graves' Disease

1. Lugol's solution
    (a) Short term—remission
    (b) Maintenance
    (c) Preparation for thyroidectomy
2. Antithyroid drugs (propylthiouracil, etc.)
    (a) Short term—remission
    (b) Maintenance
    (c) Preparation for thyroidectomy (plus Lugol's preoperatively)
3. Radioactive iodine

The antithyroid drugs are extremely valuable. If they are administered in effective doses over a sufficient length of time, irrespective of the degree of hyperthyroidism or size of goiter, a euthyroid state can be attained. Observations have shown that the occasional patient with mild Graves' disease and a small goiter may have a remission after taking an antithyroid drug. Maintenance treatment with antithyroid drugs is possible, but careful supervision is required to sustain a euthyroid state and few patients are willing to continue such treatment when a goiter is visible, since they realize that the goiter is not cured.

These antithyroid drugs are most useful in preparing patients with Graves' disease for thyroidectomy. When they are properly administered, a euthyroid state with physical rehabilitation will result, and if Lugol's solution is added for its involuting effect during the 2- to 3-week period immediately before operation, thyroidectomy can be done with complete safety. We have successfully used this plan in treating over 2,000 patients with Graves' disease.

Radioactive iodine will cure Graves' disease if a suitable dose is given to destroy the overfunctioning thyroid tissue. The problem of determining the cure dose is still unsolved, and many experts in the field of roentgen therapy are concerned regarding the possibility of future malignant change in the thyroid glands of patients who have been given radioactive iodine, although as yet no such case has been reported. Our present policy in using radioactive iodine takes into account both the problem of dose and of danger. By limiting the use of this potent agent to patients with Graves' disease who are over the age of 50, although occasionally younger patients with recurrent disease are accepted for treatment, future dangers are minimized. Since the goiter tends to be smaller in this older group or in patients with recurrence, doses of radioactive iodine ranging between 5 and 8 mc. are usually sufficient to obtain a cure. This "guess dose" method eliminates the necessity of attempting to determine the dose of radioactive iodine by using a complicated equation based on the estimated size of the gland. Since the development of myxedema is not a problem in recurrent cases, we tend toward overtreatment to be certain that cure is obtained. All patients are restored to a euthyroid state by an antithyroid drug before radioactive iodine is given.

In cases of Graves' disease the physician must select from the known therapeutic procedures the type of treatment that is best suited to his patient.

Since adenomatous goiter with hyperthyroidism does not respond to iodine, an antithyroid agent can control it but does not lead to cure, and radioactive iodine is admittedly ineffective, the procedure of choice and the one which will lead to complete cure is subtotal thyroidectomy. This operation, however, must not be done until the hyperthyroidism has been brought under complete control with one of the antithyroid agents and the patient has been rehabilitated physically. The operation may then be done safely.

Propylthiouracil is the drug of choice as a preoperative agent because its reaction incidence is low and large doses may be used safely. In the past we have been content to give propylthiouracil in daily doses of 300 to 400 mg. to patients with Graves' disease and 400 to 600 mg. to patients with adenomatous goiter. This is satisfactory for the average patient with hyperthyroidism, but in the severely toxic patient in whom rapid response is desirable experience indicates that much larger doses are necessary. We were led to the use of high dosage therapy by the occurrence of 2 fatalities in older patients who had been on antithyroid treatment for 2 to 4 months. We concluded that since hyperthyroidism is a reversible disease, perhaps higher doses of propylthiouracil might result in a more rapid return to euthyroidism. It is our present policy, therefore, to give propylthiouracil in doses of 1,000 mg. daily to our more severely toxic patients.

The response to this high dose therapy has been most gratifying. Patients with severe Graves' disease respond dramatically to 1,000 mg. of propylthiouracil daily. After 25 days of treatment the patient is markedly improved subjectively, the pulse rate and basal metabolic rate may be near normal, and substantial weight is gained, all attesting to the effectiveness of this form of treatment. In adenomatous goiter with hyperthyroidism the response to high doses of propylthiouracil is not so dramatic, but the clinical improvement which results is far superior to that following small doses. In 50 patients receiving doses of 1 Gm. no blood changes were observed. In 1 case fever necessitated the discontinuance of treatment, and in 2 cases skin reactions occurred, a reaction incidence no greater than that after small doses. In 1 patient 2 Gm. of propylthiouracil was given daily with what appeared to be an even greater response than to smaller doses (figure 1). The pulse decreased from 120 to 74, the basal metabolic rate dropped from plus 40 to plus 10, and the weight increased 20 pounds in a period of 28 days. The propylthiouracil was well tolerated.

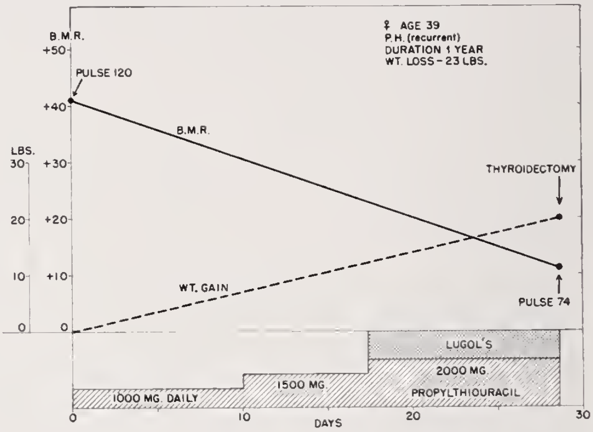

FIG. 1. Chart showing patient's response to various doses of propylthiouracil.

MYXEDEMA

Myxedema, no matter what its etiology, responds completely to adequate dosage of thyroid. The dose varies widely, from ½ grain to 1½ grains daily, and in no case is a large dose required. Although various types of thyroid preparations are available, including the newer thyroid analogues, desiccated thyroid, when properly given, provides satisfactory, cheap and complete replacement treatment. By trial and error, a dose is determined which is commensurate with complete control. In older patients or those with profound, longstanding myxedema, the beginning dose of thyroid should be small, as low as ¼ grain, to avoid serious cardiac complications such as myocardial infarction. The dose can be slowly increased to tolerance or complete control. Clinical experience indicates that the plasma cholesterol is an excellent guide to complete control; sufficient thyroid is given to depress the plasma cholesterol to a point beyond which no decrease occurs with even larger doses. Subjective and objective symptoms and signs may be sufficient to determine whether the myxedema is controlled, but the plasma cholesterol is a far superior guide. The basal metabolic rate is of little value in judging control of myxedema.

In children the dose of thyroid must be selected that will permit adequate growth. They readily tolerate doses of $\frac{3}{4}$ grain to 1 grain daily, which is the dose given frequently to an adult.

The texture of the skin over the elbows is a satisfactory sign of adequate thyroid control. In myxedema the skin over this region is dry, thickened and scaly. Following adequate treatment the skin regains a soft, smooth texture, a transition which is quite marked objectively. Similarly, a change in the capacity of the hair to curl gives good evidence that the dosage of thyroid is adequate; tousled hair changes to orderly curls, and in addition there is loss of paleness, increase in eyebrows, and return of sparkle to the eyes.

THYROIDITIS

Thyroiditis is usually only mildly symptomatic. At times in its acute or subacute phase it causes sufficient pain to require relief. Salicylates and codeine usually suffice, but for the more troublesome case additional help is needed. Since antibiotics are inconsistent in their effect, their use is not recommended, nor is X-ray therapy uniformly helpful. Cortisone is recommended by some investigators, although they admit it does not limit the progress of the disease, for if the process starts in one lobe it usually extends to the other lobe even while cortisone is being given. Cortisone, however, does relieve pain. ACTH gel is extremely helpful in relieving pain in cases of acute nonsuppurative thyroiditis. A dose of 100 units has been observed to give prompt relief, and only rarely need this dose be repeated.

It is the late complication of thyroiditis, myxedema, that needs treatment. The thyroiditis may be so mild that it is practically asymptomatic. The patient consults the physician because of abnormal swellings of the face or gradual decline in health, the manifestations of myxedema. Since thyroiditis causes myxedema, it is essential that the thyroid gland be examined in every case of apparently spontaneous myxedema. A recent example of this was the patient who thought his face and head swelled because he inhaled poisonous fumes. Examination of the neck revealed a hard, diffusely enlarged goiter characteristic of thyroiditis. The presence of mild stiffness of the neck was the only evidence of thyroiditis. Following administration of desiccated thyroid, 1½ grains daily, the swelling of the face subsided and the thyroid decreased in size.

Another patient with declining health and quite obvious myxedema was entirely unaware of the presence of a bilaterally firm goiter. At no time was there neck pain. The unkempt hair, lid edema, anemia, hoarseness, hard thyroid gland, and dry scaly skin over the elbow suggested myxedema, which was confirmed by an elevated level of plasma cholesterol. The satisfactory response to desiccated thyroid, 1½ grains daily, with relief of all symptoms and signs, confirmed the diagnosis of myxedema. The thyroid is smaller but still remains firm.

SUMMARY

Hyperthyroidism, myxedema, and thyroiditis are common medical problems for which adequate therapeutic measures are available. In all cases, individualized treatment leads to gratifying results.

TRENDS IN RESEARCH ON ATHEROSCLEROSIS*

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THROUGHOUT the length and breadth of our land and in many foreign countries research is going forward frantically in an effort to determine the cause of arteriosclerosis and its presenile form, atherosclerosis, our number one killer. It would look as though we were searching hysterically for the answer in order to save ourselves as well as posterity, and such would not be a wholly unworthy purpose. As an instance of this seething activity is the fact that at the Eighth Annual Meeting of the American Society for the Study of Arteriosclerosis, October 31 to November 1, 1954, 63 papers were presented on research efforts in this field.

The most comprehensive review on the subject of arteriosclerosis up to 1945 was that of Hueper[1] published in the Archives of Pathology, and I shall quote liberally from that. The thing that strangled research on this subject for many years was the acceptance of the theory that in general there is an increase in the incidence and degree of arteriosclerosis with advancing years, but many old people have relatively little arteriosclerosis and a considerable number of young people have been found to have the condition to some extent, and in instances in an advanced degree.

There does appear to be a definite progression of elongation of many of the arteries with advancing age, associated with granular disintegration of the elastic lamellae and an increase in connective tissue in the media. But this seems to be a somewhat different process from the selectively localized lipid-containing plaques that occur in many people in the prime of life and earlier. In many animals as well as man there is by no means a relationship between longevity and arteriosclerosis. As Hueper states, "A large amount of clinical, pathologic and experimental evidence connecting endogenous and exogenous factors with the production and precocious appearance of sclerosing and atheromatous intimal lesions as well as medial degeneration and necroses cannot be reconciled with the senescence theory." It is these endogenous and exogenous factors which are now being sought.

ANIMAL EXPERIMENTATION EXCLUSIVE OF CHOLESTEROL FEEDING

In the old days, that is to say, before the turn of the century, our knowledge of vascular diseases came from the work of morphologists. They gave us excellent gross and microscopic descriptions of the main diseases. After that, many researchers began to try to ferret out their causes. The mechanical trauma theory was developed as a principal or an important contributory factor in the development of chronic degenerative arterial diseases. Continued mechanical strain at certain sites, such as bifurcations and points of arterial fixation, was thought, as the result of tension, vibration, and shearing between intima and media, to cause a loosening of the connective tissue ground substance or a separation of the intima from the media and favor the imbibition in these areas of the lipid-containing plasma as well as the development of a reactive intimal proliferation. Cholesterol, an important lipid in the plasma and a substance found in the intimal plaques, was thought to infiltrate through stomata in the endothelial lining resulting from the trauma and the subsequent impairment of nutrition of the vascular lining. Unusual stretching and perhaps some fragmentation of the internal elastic lamina resulted in fibroblastic proliferation and final hyalinization of the subintima. The blood flow in the vasa vasorum of the media was disturbed and led to myomalacia and eventual fibrosis or hyalinization. Certainly, while not the primary or sole cause of arterial degeneration, this abnormal localized strain in the arterial wall, such as overdistention or overcontraction caused by fluctuations in hydrostatic pressure or vascular tonicity, does exert an appreciable influence on the blood flow in the vasa vasorum, which nourish the media, and on the metabolic function of the intima, which receives a significant portion of its nutriment from the plasma within the lumen of the vessel. Indeed, it seems to me that such mechanical strain is very important in the localization of lesions, particularly in the important coronary arteries, since the obturating atheromatous plaques are found mainly at or near bifurcations of the larger, subepicardial arteries where there is eddying of the blood during the diastolic recoil of the dilated arteries, a condition not existing to the same extent in other arteries. This would imply the effect of aging, inasmuch as the passage of time emphasizes the quantity of strain so imposed.

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Then came the toxin theory that certain substances of bacterial origin or of endogenous or exogenous toxic or chemical nature exert a cytotoxic effect on the vascular wall, injuring the intima and making it more permeable to the cholesterol and fats of the plasma. Infectious diseases were thought to be responsible for arteriosclerosis in the young. However, there are many reasons to doubt that acute or chronic infections play a great part in the genesis of atherosclerosis. There are, on the other hand, a large number of chemical and physical agents known to produce various kinds of arteriosclerotic lesions at different sites in man and animals. This fact led to the anoxemia theory that these agents, acting either transiently and in concentrated form or persistently and in moderate amount, interfere with the oxidative metabolism of the arterial wall. These agents are thought to work by causing (1) vascular hypotonia followed by stagnation anoxemia or (2) vascular hypertonia followed by constriction anoxemia. The first group includes histamine, acetylcholine, anaphylactic shock, orthostatic shock, nitrates and nitrites, carbon monoxide, arsenic, manganese, mercury, and aromatic hydrocarbons. These may produce endarteritis or fibrotic thickening of the intima and fibrosis and calcinosis of the media but not typical atherosclerosis. The second group, including such vasoconstricting pressor agents as epinephrine, physostigmine, nicotine, adrenal cortical hormone, pituitary hormones, parathyroid hormones, vitamin D, ultraviolet rays, calcium salts and substances producing acidosis, digitalis glucosides and strophanthin, ergot, S-methylthiourea, barium chloride, lead, thyroxin and iodine, gonadal hormones, cold, and others, may cause various types of vascular degeneration, including endarteritis and medial necrosis and calcification but not typical atherosclerosis, in various locations.

Much has been said and much work done in regard to the vascular lesions of hypertension, both renal and essential. In hypertension there are endarteritic and medial degenerative lesions in the large and small arteries, but it is agreed by all that hypertension is not a main cause of atherosclerosis, although that condition may be somewhat more common in hypertension.

As the data accumulated it became clear that there were many forms and causes of arterial disease, but at the same time it became increasingly apparent that the most important form of arterial disease, atherosclerosis, was the one for which the cause could not be easily determined. There were the atheromatous streaks of the aorta in babies, children and pregnant women that were shown to be reversible. There were the endarteritic and medial degenerations due to various causes; there were the changes due to hypertension, ergotism, schistosomiasis, endogenous and exogenous chemicals and toxins, hormones, shocklike states, frostbite, and physical trauma; there was the probably inflammatory thromboangiitis obliterans, the possibly allergic periarteritis nodosa, the vasospastic Raynaud's syndrome, and others, not to mention the relatively innocuous Mönckeberg's medial calcinosis. But what disturbs us most is the major cause of death, atherosclerosis, that strikes men down in the prime of life and slays women after the climacteric.

Prior to 1910 the lesion of human atherosclerosis had not been produced in animals, in spite of many experiments. After that, researchers developed methods of producing vascular lesions in different animals that had some of the features of human atherosclerosis. Most of these lesions were essentially atheromata. The data gave definite proof that colloidally dispersed matter present in the plasma can enter the normal vascular wall without the mediation of the mechanism active in the arterial lesions of vasotonic and hydrostatic hypotensive and hypertensive disorders. As Hueper states, "The interference with vascular oxygenation here is not caused by stagnation or ischemia resulting from abnormalities in the speed of blood flow, the amount of blood supply and the pressure exerted by the vascular content on the vascular walls, but is due to an impairment of the exchange of gases and other nutritive material through the interface between the blood and the vascular wall by the interposition of a film or a precipitate formed by some normally colloidally dispersed component of the plasma and causing subsequently a reduction in the permeability of the vascular walls."

Nutritional substances, salt solution, dextrose, bile pigment and hemoglobin permeate the normal vascular wall, and certain drugs increase this permeability, while others depress it. Highly dispersed colloidal dyes penetrate first the outer part of the media, next the inner part, and finally the middle part, indicating that the dyes enter the vascular wall not only through the vasa vasorum but through the intima from the lumen. Certain exogenous carbohydrate substances with large molecules, such as polyvinyl alcohol, methyl cellulose, pectin and acacia, when injected in solution intravenously or intraperitoneally in animals form an emulsion with plasma. These emulsions coat the surfaces of erythrocytes and interfere with the speed of oxygenation of these cells and are stored in various organs and the endothelial cells of the arteries. The endothelium takes up the foreign matter and deposits it in larger foam cells, and these histiocytes invade the inner part of the media. Fatty granules appear in the endothelium, possibly from the plasma, and others appear in the media, probably as a result of necrosis, and thus atherosclerosis develops in the experimental animal. The hyaline-calcinotic intimal plaques resulting are similar to the end stage of the disease in man.

Cholesterol and Lipoproteins

Before summarizing the great volume of work on experimental cholesterol atherosclerosis, let us turn our attention to the subject of cholesterol. This substance, a monatomic alcohol, is derived partly from ingested food (eggs, butter, milk, lard, brain and meat) and partly from synthesis in the body. The phytosterols in vegetable matter are not absorbed by the animal organism. All animals and man synthesize cholesterol in most of their tissues, but the most important organ in this synthesis is the liver. Arteries synthesize a minute amount. The body can eliminate cholesterol by excretion in the bile and by complete destruction. In the body, cholesterol is the most abundant of the large class of sterols. Milk contains it mainly in the form of esters, meat and brain mostly as free cholesterol. The ratio of esterified cholesterol to the free form in lymph and plasma is 2:1. Bile contains more free cholesterol. The ester form is bound to fatty acids. Foodstuffs containing fat or oil are necessary for dissolving cholesterol, which is emulsified in the intestines by bile acids. Plasma normally contains from 130 to 230 mg. per 100 ml. Cholesterol is excreted with bile, sebum, milk, intestinal secretion and urine, and through the skin, the lungs and the bronchi. Since cholesterol is a hydrophobic colloid, it is held in colloidal dispersion by the presence of hydrophilic colloids (lecithin, protein). Together with other lipid constituents of the plasma, phospholipids and fat (glyceryl ester), cholesterol and its esters occur in the form of complexes with proteins, lipoproteins. These are soluble in water and therefore in plasma, a water solution. The lipoproteins of the plasma are not present in atheromatous plaques as such; there is a preferential deposition of cholesterol.

The lipoproteins occur in two major groups, alpha and beta. Ultracentrifugal, electrophoretic and chemical technics are available for the separation and quantitation of lipoproteins. The brilliant demonstration of Gofman's group[2] that these large, low-density lipoprotein "molecules" could be made to undergo flotation rather than sedimentation in the ultracentrifuge stimulated great interest and much research in the physical state of the lipids in the problem of atherogenesis. With any given solvent density and speed of rotation, lower density lipoproteins undergo flotation more rapidly than denser ones, so that the lipoproteins may be labeled according to their flotation rate. The flotation is known as the "S_f" (Svedberg of flotation) or "S" number, depending on whether the Gofman technic (solvent density 1.063) or the modification of Lewis, Green and Page[3] (solvent density 1.21) is used. Thus a single lipoprotein may be referred to by its flotation rate as, for example, an S_f 4 or an S_f 10 lipoprotein; or one may refer to the sum of the concentrations of all the lipoproteins between arbitrary flotation rate limits as, for example, the concentration of S_f 10–20 lipoproteins as the sum of the concentrations of all lipoproteins floating with rates between S_f 10 and S_f 20.

Ultracentrifugally, the biochemists recognize alpha-1 and alpha-2 lipoprotein groups as well as the beta lipoproteins. The alpha-2 group has a flotation only slightly less than that of the beta lipoprotein and behaves similarly in many instances. In many healthy people a variable amount of lipoprotein with a flotation rate slightly faster than that of beta lipoprotein is found (S_f 12–20 or S_f 40–70). Lipoproteins of faster flotation rates (chylomicrons) are found in cases of familial hyperlipemia and in healthy persons after a fat-containing meal. These lipoproteins contain relatively more neutral fat and less cholesterol, phospholipid and protein than those with lower flotation rates.

Lipid may enter the system of lipoproteins in high S_f rates, and as they yield their neutral fat to the body depots the rates may be successively changed to lower S_f ones. This transformation is accelerated by heparin and heparinoid substances with the "clearing" or decrease in turbidity of the plasma ("clearing factor"). This factor acts like an enzyme and causes a decrease in the concentration of molecules containing the most neutral fat (chylomicrons and insoluble beta lipoproteins) and an increase in concentration of the molecules with less neutral fat (soluble beta lipoproteins and alpha lipoproteins). The blood of normal animals contains little, if any, clearing factor. Therefore, Korn[4] postulates that, if it plays a role in fat metabolism, it must be present intracellularly. He prepared an acetone-dried powder of rat heart and found that an alkaline extract catalyzed the hydrolysis of chylomicrons and beta lipoproteins. The administration of heparin causes the enzyme responsible for this reaction to spill out into the blood where it normally does not exist. "Clearing factor can, therefore, be designated as a heparin-activated lipoprotein lipase." Korn proposes that as the simple triglycerides are secreted by the intestinal mucosa into the lymphatic system they become associated with soluble alpha and beta lipoproteins, forming insoluble, turbid chylomicrons and beta lipoproteins. These molecules circulate in the plasma to the tissues where lipoprotein lipase (clearing factor) catalyzes their hydrolysis to glycerol, fatty acids and basic alpha lipoprotein. Thus, as a cause of abnormal fat transport there may be in some individuals abnormal lipoproteins which cannot be hydrolyzed by lipoprotein lipase, or there may be a deficiency in the enzyme protein or in its co-factor, heparin.

About 77 per cent of the beta lipoprotein molecule is lipid; the rest is protein. From 60 to 70 per cent of the cholesterol of plasma is present in the beta lipoprotein molecule, the remainder being in the alpha-1 lipoprotein. In both groups the cholesterol is about two-thirds esterified. The mean value of the cholesterol-phospholipid ratio in beta lipoprotein is about 1:1.25, in alpha-1 lipoprotein 1:0.5.

Lipoproteins are transport vehicles, for example, for estriol, carotenoids and alpha-tocopherol, and they thus serve to maintain physiologic concentrations in the plasma of such substances as vitamins and hormones. However, very little of the alpha and beta globulins occurs in the lipoproteins.

Feeding Experiments in Animals

Since 1910 numerous attempts have been made to produce atherosclerosis in carnivorous animals and omnivorous animals by various feeding experiments. Omnivorous and carnivorous animals, like man, rapidly absorb and excrete ingested lipoid material, with a rapid and transient rise of blood cholesterol. If lipoid material is fed over long periods there is a decrease in the degree of visible lipemia as the organism becomes trained in handling lipoids. Combined protein-lipoid diet increases the digestive transient lipemia.

Although persistent hypercholesterolemia can be produced in dogs by feeding cholesterol or lecithin, atheromatosis results only if the dog is made hypothyroid, but in chicks, rabbits, hamsters and guinea pigs only cholesterol feeding is necessary. Atheromatous lesions have been produced in monkeys and rats by means of a high-cholesterol, high-fat, high-choline diet deficient in sulfhydryl-containing amino acids; in rats by feeding a low-choline, high-fat diet without extra cholesterol; in geese by force feeding, with extra cholesterol.

The great majority of experiments on alimentary cholesterol atheromatosis were performed on rabbits. Various types of diets have been used. Use of a protein diet very low in cholesterol has resulted in vascular changes of the sclerotic-calcinotic or sclerotic-lipoidotic type. From such and similar experiments it has been shown that a dietary cholesterol intake is unessential for the production of atheromatous lesions. Rabbits fed a cholesterol-free protein (defatted casein) supplement in a regular diet developed hypercholesterolemia and arteriosclerotic changes in the aorta and coronary arteries, but when the casein was replaced by soybeans these lesions were prevented by the iodine in the soybeans. When rabbits were fed a diet 50 per cent of which was powdered lean beef meat and low in cholesterol, typical atheromatous lesions developed in the aorta in addition to intimal and medial calcifications. The development of atherosclerosis in the cholesterol-fed chick is accelerated by starvation, by the administration of cortisone and by pancreatectomy plus administration of desoxycorticosterone acetate and sodium chloride. Curiously, the production of alloxan diabetes in cholesterol-fed rabbits inhibits the development of atherosclerosis. In such animals there are higher concentrations of neutral fat in the serum.

In cholesterinolized rabbits the cholesterolemia may rise to 20 times the normal, but later it gradually drops in spite of the continued use of a high-cholesterol diet and becomes stable at several times the normal value. After all possible depots for lipoid storage (liver, adrenal glands, kidneys, spleen, lungs, and reticuloendothelial system) are filled to capacity, a metabolic adaptation seems to develop to the increased intake of cholesterol by means either of more rapid excretion or decreased absorption of cholesterol. The type of oil used as a solvent influences the speed of absorption of cholesterol and the development of hypercholesterolemia.

Atheromatous deposits in the arteries appear first in the ascending aorta and around the orifices of the intercostal arteries, later in the abdominal aorta and the larger arteries including the coronaries and the pulmonary and even in some veins. The lesions start with the appearance of lipoidal matter in the subendothelial ground substance and in foam cells in the region or with foamy swelling of the endothelial cells. The internal elastic membrane may show fraying and proliferation and may be penetrated by foam cells invading the media. There may even be transformation of the endothelial lining of the vasa vasorum into foam cells.

After cessation of cholesterol feeding regressive changes may occur until finally the foam cells are replaced by cholesterol crystals while calcification and fibrosis increase.

Increased susceptibility to cholesterol atheromatosis has been noted in thyroidectomized, splenectomized and gonadectomized rabbits.

Various means have been employed in attempting to prevent or cure the atheromatosis of rabbits. Chlorophyll exerts a favorable effect. Potassium thiocyanate reduces the severity of lesions in cholesterolized, thyroidectomized rabbits. Iodides given with the cholesterol prevent or mitigate the development of cholesterol atheromatosis. Organic iodides are most effective. The effect is probably connected with a stabilizing action on the equilibrium of the plasma colloids. Iodide medication has no effect on established lesions, however. A similar protective action occurs when thyroid preparations are given with the cholesterol. The difference between iodide's protective action and that of thyroid is that the hypercholesterolemia persists with the use of iodide, whereas hypocholesterolemia results from thyroid administration. Deproteinized pancreatic extract has a protective action. Of greatest promise are defatted brain extract preparations and plant and other sterols closely resembling cholesterol chemically. These seem to prevent the gastrointestinal absorption of cholesterol.

Female rabbits fed cholesterol and treated with either estradiol propionate or testosterone propionate show inhibition of the hypercholesterolemia and almost complete absence of cholesterol deposits in the aorta (Wright[5]). This effect does not occur in male rabbits. Gonadectomy does not alter the response of normal female rabbits, but the protective action of these substances toward cholesterosis is abolished after castration.

Cholesterol-fed cockerels given estrogens parenterally or orally do not develop coronary atherosclerosis but do develop aortic lesions (Katz et al[6]). Estrogens also alter plasma lipid patterns, accentuating hyperphospholipemia and reducing the plasma total cholesterol/lipid phosphorus ratio toward normal levels. The estrogens also produce significant changes in the ratio of alpha to beta lipoproteins in the plasma. Estrogens retain their effectiveness against coronary atherogenesis in depancreatized chicks and in cockerels with hyperadrenalism and steroid diabetes induced by corticoids or ACTH. The feminizing effects of estrogens in cockerels can be prevented by simultaneous administration of androgens without annulling the inhibitory action of the estrogens against coronary atherogenesis. The egg-producing hen is protected against cholesterol-induced coronary atherogenesis by its endogenous estrogen. Therapeutic effects result from the administration of estrogen in cockerels fed cholesterol long enough to produce coronary atherosclerosis. Within a few weeks the coronary lesions are practically gone.

Recently Bragdon[7] has produced atheromatous lesions in the coronary arteries and the endocardium of rats receiving lipoproteins intravenously or intraperitoneally, but the lesions are somewhat different from those of the cholesterol-fed laboratory animals. Four main classes of lipoproteins were injected intravenously. Chylomicrons were removed very rapidly and alpha lipoproteins very slowly, with the other classes in between, the rate of clearance being inversely proportional to the protein content. Chylomicrons did not produce lesions except in tremendous doses. Both low- and high-density lipoproteins produced lesions; alpha lipoproteins did not, but large doses of lipids have not been attained because of the high protein content of this class.

Many substances that have been tried for the purpose of determining whether they would inhibit the atherogenic effect of hypercholesterolemia in rabbits have failed to show such effect. Some of these were the lipotropic factors (including choline, inositol, methionine, vitamin B_{12}, vitamin E, and various pancreatic factors) and lipocaic, ethyl ester of ricinoleic acid, ascorbic acid, thiamine, and dehydrocholic acid.

Many investigators have pointed out the dissimilarity between the experimental cholesterol atheromatosis of rabbits and human atherosclerosis, maintaining that the rabbit lesions resemble the lipoid spots in man or the xanthomatous vascular lesions of essential xanthomatosis, occur only with generalized lipoidosis resulting from an abnormal diet, differ in topographic distribution, have a somewhat different histologic structure, are not produced by the same diet alone in carnivorous animals, spare the cerebral vessels, and do not ulcerate or induce thrombi. Hypercholesterolemia and instability of the plasma lipoidal solution represent the common denominator for the development of the organic lipoidoses and the vascular atheromatosis of the acute alimentary form of cholesterosis of the rabbit on the one hand and the accelerated types of metabolic cholesterol disturbances of essential xanthomatosis, diabetes mellitus and hypothyroidism on the other. The hematic and vascular reactions in rabbits fed small amounts of cholesterol over long periods are not unlike those of human atherosclerosis.

As far as the immediate causative mechanism in man is concerned, it is immaterial whether or not an excessive dietary intake of cholesterol plays a significant role in the production of atherosclerosis, since there are many other causes for the imbalance in the plasma lipoidal solution, and we do not know how normal or abnormal the diet of natural and processed foodstuffs of the average human being is, considering differences in constitution and environment and what long term effect it exerts on the plasma lipoidal equilibrium and the status of the vascular system.

The differences in topographic distribution may be due to localized static factors, erect posture and other anatomical and functional differences. These have been thoroughly elaborated upon by many writers.

Theories of Atherogenesis

Because of the usual, though not universal presence of cholesterol in the lesions of atherosclerosis, different theories have been propounded over the years concerning the meaning of the cholesterol therein. One group held that the presence of cholesterol and other fats is the result of necrobiotic processes in the formation of fibrous-hyaline intimal thickenings (Virchow and others[8]). Another group believed that the cholesterol is imbibed from the plasma as a part of the colloidal aging process which causes a loosening of the connective tissue ground substance of the intima and allows the mucoid matter to retain the cholesterol. This theory invokes the hypothesis of senescence (Aschoff and others[9]). Another group led by Leary[10] thought that cholesterol is introduced into the subendothelial tissue by cholesterol ester-containing lipophages that penetrate the intact endothelial lining, these lipophages being derived from desquamated foam-cellular reticulo-endothelial cells of the liver, the adrenal glands, and the lungs. Winternitz[11] devised another theory, namely, that the penetration of newly formed capillaries from the vascular lumen or from the vasa vasorum into the intima allowed the occurrence of hemorrhages in these capillaries and that cholesterol in the plasma and liberated from the disintegrating blood cells appears in the decomposing hemorrhagic foci.

Anistschkow[12] and his followers maintained that the deposition of cholesterol in the intima is the result of hypercholesterolemia and that the cholesterol is taken up by the endothelial cells and the subendothelial phagocytic cells, which are transformed into foam cells. Hueper[1] invoked another explanation, namely, that the atheromatous process is initiated by an imbalance of the plasmatic colloid equilibrium causing the precipitation of a cholesterol film on the intima, which interferes with the proper exchange of gases and nutritive substances between the blood and the vascular wall. The resultant injury to the endothelial cells causes increased permeability of the endothelial lining and proliferation of the endothelial cells, which take up cholesterol and are thereby transformed into foam cells. This chain of events may be due to quantitative imbalances in the cholesterol content or may result from an increase in the plasma of substances which decrease the dispersal of cholesterol and favor its precipitation or from a decrease of substances which enhance the dispersal of cholesterol. Hueper thus linked together the anoxemia theory that cholesterol influences the oxygenation and nutrition of the vascular wall with the conditions prevailing in the atheromatoses elicited by polyvinyl alcohol and other exogenous carbohydrates.

Page[13] has propounded a "filtration" concept based on the view that atherogenesis is due to the tissue reaction to substances filtered from plasma as lipoprotein by lateral arterial pressure and deposited in the intima as "foreign lipid." Most of the filtered materials pass on harmlessly to be picked up by the adventitial capillaries or the lymph, but some may stay behind, whether because the vessel fails to function properly as a filter or because the shape or charge of the lipoproteins is such as to allow them to stick. Changes in the arrangement, amount and chemical nature of subendothelial ground substance conceivably may initiate a focal change in filter function. The reaction which ensues depends on the nature of the lipid deposited and the responsiveness of the tissues to it. Page emphasizes the basic similarity in initial relative composition of vessel wall `and plasma lipid, which supports the view that the source of the vascular wall lipid is plasma lipid.

Clinical Investigation in Man

All this animal experimentation started primarily with the demonstration by the morphologists that cholesterol is an important component of the atherosclerotic plaques in the coronary and other arteries in man. It was further stimulated by the observation that human beings with known coronary artery disease are statistically more prone to have higher blood levels of cholesterol than supposedly healthy men, especially during the active phase of the disease. The animal experiments showed that the blood cholesterol rises to high levels and atherosclerosis develops when rabbits and chickens are fed large amounts of chol esterol, an abnormal condition for these animals· However, the same experiment of high cholesterol feeding alone did not produce the same results in dogs, cats, rats, monkeys and man. Therefore, although some important knowledge was gleaned from all of this animal experimentation and more is forthcoming, we must go back to clinical investigation, using man as the test animal, and such investigation must be done on a life-long scale or over a period of years.

Dietary factors. Some progress has been made already by the work of Keys[14] and others in reference to what Keys terms the "experiments of nature among human populations." At least two such types of experiments have been used: (1) a statistical analysis of the effects of semistarvation, i.e., a reduction in the proportion of calories obtained from dietary fats, as related to the mortality from so-called degenerative heart disease, and (2) a study of the dietary habits of different populations in the same connection.

During World War II in the war-torn countries of Europe, where semi-starvation existed and both the caloric and fat content of the diet were low, the incidence of deaths from coronary artery heart disease was greatly reduced. With complete fasting the serum cholesterol concentration tends to rise because metabolism is maintained by the fat depots of the body, but in semi-starvation and famine, when the diet is of the high-carbohydrate type, the serum cholesterol tends to fall. Among those ethnic groups, such as the Italians, Spanish, Chinese, Japanese, Bantus (native South Africans) and others, whose dietary is low in fat, about half that of Americans and Northern Europeans, 20 per cent as against 40 per cent, the incidence of death from coronary disease is much lower than among the peoples with the higher standards of living, even though there is little difference in the incidence of obesity. The serum cholesterol may follow the same gradually rising pattern from the age of 20 to 35, but after that the level among the low-fat eaters does not rise further and may even drop. In man, therefore, in general the serum cholesterol level is influenced by the proportion of calories supplied by fats in the diet, not only of animal but also of vegetable origin, and the amount of cholesterol in the diet is unimportant. The cholesterol level is also influenced by the total caloric content of the diet, the important fact being that cholesterol is endogenously synthesized. When the caloric intake is equal to the expenditure, the absolute amount consumed is unimportant for cholesterol levels.

Larsen[15] has made an interesting observation as a result of a study of the amount of coronary atherosclerosis in 1,250 consecutive autopsies of patients over 30 years of age at The Queen's Hospital in Honolulu. In comparing the Orientals and Caucasians under 45 and those over 45, he noted that the younger members of the two races have more nearly the same percentage of atherosclerosis than the older ones. He thought this might indicate that, as the Oriental is adopting the Caucasian diet with its richer content of fat and calories, he tends to develop the same degree of atherosclerosis.

Keys[14] emphasized these facts in another way. By feeding experiments in men, keeping calories, proteins and activity constant and manipulating cholesterol and various kinds of fats, he showed consistently a direct response to change in fat calories with no indication of an effect of cholesterol per se or of the kind of fat in the diet. The serum cholesterol dropped progressively with the percentage of reduction of calories from all fats. Another example is the rice-fruit diet of Kempner for the treatment of hypertension. This causes a fall in serum cholesterol of 23 per cent in 3 weeks. This diet is low in salt, proteins and total fat and is almost devoid of cholesterol. When vegetable fats or oils are added the serum cholesterol rises immediately, i.e., without any addition of cholesterol to the diet.

When talking of the effect of fats in the diet one naturally thinks of obesity. The life insurance companies have stressed the point that overweight people do not live as long on the average as others and that there is an excess mortality from heart disease among them. But the insurance statistics refer to major degrees of overweight, perhaps 50 or more pounds over the average. They do not indicate how much of the overweight is excess fat and how much muscle and bone, or whether the overweight is a lifetime matter or one acquired in middle life. Yater and his group[16] found no evidence that body weight was a factor in the coronary disease of soldiers in World War II, and other studies have also cast doubt on this relationship. There is little correlation between body weight and serum cholesterol, although serum cholesterol rises during the active stage of gaining weight from overeating; but in the maintained state of obesity it is the character of the diet rather than the degree of fatness that is reflected in the cholesterol levels.

Page[13] has summarized well the matter of diet in connection with atherogenesis:

1. The body can synthesize 2 Gm. of cholesterol a day as compared with the usual intake of

0.2 to 0.4 Gm. a day; the cholesterol content of the diet is therefore less important because of endogenous synthesis.

2. People on low fat diets have lower plasma lipids.
3. The fat, not the cholesterol, is important.
4. The total caloric intake is important.
5. Vegetable and animal fats seem equivalent.
6. The level of blood lipid in some individuals, and possibly races, is largely independent of diet.
7. The hyperlipemia of most diseases is endogenous.
8. Moderate caloric intake with one quarter as fat seems reasonable.
9. Extremes of fat intake should be avoided.

It must be emphasized that too drastic reduction of fat with substitution of carbohydrate for calories ultimately leads to fatty degeneration of the liver and kidneys in animals and probably early aging. Perhaps the same might occur in man, in whom such a diet causes gastrointestinal disturbances, psychic depression, and irritability.

Gofman's concept. Regarding the lipoproteins, which are considered by many to be so important in atherogenesis, clinically useful information, however, must await the time when their specific chemical composition is elucidated and their physical characteristics measured. It is true that in diseases associated with hypercholesterolemia the beta lipoproteins are increased. The assumed molecular weight of the beta lipoproteins is 1,300,000, with amino acid residues constituting 23 per cent and lipid 77. Eight per cent is free cholesterol, 39 per cent ester cholesterol, and 29 per cent phosphatid. About 70 per cent of the lipids of normal fasting human serum is in the beta fraction. The alpha lipoproteins contain about 2.7 times as much phospholipid per mol of cholesterol as beta lipoprotein and are smaller and denser. Small changes in distribution of the lipoproteins are associated with large changes in plasma lipid levels.

The work of Gofman's group has aroused a great deal of interest. They believe that lipoproteins with flotation rates between 12 and 20 Svedberg units (S_f 12–20) are atherogenic, the belief being based chiefly on the fact that cholesterol feeding in rabbits leads to the appearance of new cholesterol-bearing molecules of the class S_f 10–30 and appearance of atherosclerosis. In humans, molecules in the S_f 12–20 class were found to contain about 30 per cent cholesterol and little protein, and there is a definite increase in this class of molecules in diabetics, nephrotics and patients with myocardial infarction. However, the argument for the specificity of the S_f 12–20 molecules for atherogenesis was weakened later by the claim that molecules of the S_f 20–100 class are also significant in atherogenesis. Gofman's group found that 95 per cent of patients with recent myocardial infarction had excessive concentrations of the larger lipoprotein molecules, but similar concentrations were also found in 40 per cent of supposedly normal people, although no one can be sure that subclinical atherosclerosis is not present in such persons. Gofman's group also observed that the concentration of the larger lipoprotein molecules was often decreased by diets low in fat even though these diets did not alter the concentration of cholesterol. Also, the concentration of the large lipoprotein molecules was greatly decreased by the administration of moderate doses of heparin. In regard to these observations, Keys[14] has said, "Obviously, if it is desired to study the value of a particular kind of blood measurement as a means of predicting the probability of early or late development of coronary disease in the future, it will be necessary to make the measurements now and then wait some years to see what is the outcome. . . . Measurements of cholesterol, lipoproteins and the like have great significance for statistical and epidemiological studies, but it is unjustified to claim that measurements of S_f 12–20, or calculation of an 'atherogenic index' from centrifugal studies have unique diagnostic or prognostic virtue. For present purposes the significant point is that there is no longer much serious argument about the concept of an important relationship between atherogenesis in man and the cholesterol concentration in the blood, whether the latter is measured as such or in the form of various lipoprotein analyses." "In any case," says Keys, "a single blood sample represents only a particular moment in a situation that may be years in developing."

In order to try to clarify Gofman's concept, in 1950 the U. S. Public Health Service sponsored a joint laboratory study of the problem, determining the serum lipoproteins of nearly 12,000 supposedly normal people at yearly intervals. This study has not been completed, but the report is awaited with great interest. One may predict that no single lipid fraction will be found as the significant one in atherogenesis, but it may develop that combined data on multiple fractions may yield a clear correlation with the disease process.

Assuming that the method for determining cholesterol is exact, which it is not in most laboratories, one must remember that the fact that hypercholesterolemia is found, usually in mild degree, in about 40 per cent of patients with myocardial infarction does not mean that the hypercholesterolemia existed prior to the infarction nor that, if it did, the elevation was the cause of the atherosclerosis. And even though the evidence tends to incriminate the larger and lighter lipoprotein fractions as those more often associated with atherosclerosis, one can not assume that their presence alone is sufficient evidence to make the diagnosis of atherosclerosis.

I have already mentioned the role of heparin in the mechanism of "clearing," i.e., eliminating the turbidity of the lipid-laden plasma. Atherosclerotic patients fail to "clear" alimentary lipemia with a small dose of heparin as effectively as "normal" people. Further work on the clearing phenomenon and the clearing factor may reveal that atherogenesis is linked with resistance to clearing of lipemic plasma.

It has been suggested that a decrease in the amount of phospholipid in proportion to the amount of cholesterol might augment the deposition of cholesterol in the vessels, but whether phospholipid in combination with the lipoproteins aids in maintaining cholesterol in solution in plasma has not been shown.

The distribution of cholesterol between alpha and beta lipoproteins may be significant for atherogenesis. Barr's group [17] found that in disease predisposing to atheroma, such as diabetes, nephrosis and xanthomatosis, relatively little of the total cholesterol is combined with the alpha form, the implication being a relative increase in the beta form. Survivors of a myocardial infarct also tended to show this difference.

The chemical and physical constitution of the proteins which keep the lipids in solution and transport them need much study. It is possible that a defect in the synthesis or degradation of the protein component may be at fault in atherogenesis.

Hormonal factors. The possible role of the hormones in atherogenesis is receiving great attention because of the relative immunity to atherosclerosis of females before the menopause. The animal experiments of Katz et al[3] in this connection are significant. Also, it has been found that alpha-1 lipoproteins are more concentrated in the female and increase with age, whereas beta lipoproteins are present in greater amounts in the male and increase in both sexes with age. Estrogens have been administered to male survivors of myocardial infarction and with seeming benefit. Estrogen administration is regularly followed by increase in alpha-1 lipoprotein with decrease in beta and alpha-2 lipoproteins, and androgen administration does the opposite. Women castrated relatively early in life seem to have an increased susceptibility to atherosclerosis, whereas male castrates appear to have a reduced degree of atherosclerosis.

The association of hypothyroidism and hypercholesterolemia in animals and man is well known, as is also the disappearance of the lipemia after thyroid administration, but Blumgart[18] found that totally thyroidectomized patients with an average increase in blood cholesterol of 125 mg. did not develop unusual atherosclerosis after 1 to 13 years. Thyroid substance reduces hyperlipemia, but not in patients with nephrosis. In different animals thyroxin shows variable effects in inhibiting atherogenesis and in hastening the regression of lesions. There is no proof that thyroid administration in man will prevent atherosclerosis or ameliorate its progress, and therefore there is no present justification for it.

Other factors. Other measures affecting blood lipids have been studied. Iodide depresses plasma lipids. In most animals large doses are required to prevent experimental atherosclerosis. Iodide may affect the receptivity and response of the arteries to lipids. Most of the increase in protein-bound iodine after feeding it is found by fractionation to be in the butanol-insoluble residue. The formation of this fraction seems to be largely independent of the thyroid gland. There are no human data to indicate the value of iodide administration in the prevention of atherogenesis or the amelioration of atherosclerosis.

The feeding of phytosterols has been suggested as a means of preventing absorption of cholesterol, since soybean lipid has been shown to prevent atherosclerosis in cholesterol-fed chickens, and dehydrocholesterol has been shown to act similarly by some investigators but not by others. It must be remembered that even if this is true it is not ingested cholesterol that leads to atherogenesis in man. Feeding brain extracts to patients with coronary artery heart disease has been shown to reduce the serum cholesterol in some.

Heredity. Heredity is one factor concerning which there is little doubt in reference to atherogenesis. It has been known for years that atherosclerosis, particularly of the coronary arteries, runs in families. Among a large group of young soldiers with coronary disease studied in World War II Yater et al[16] found a family history of degenerative vascular disease four times as often as in a large control group. Coronary atherosclerosis may represent a milder form of disturbance of lipid metabolism than that found in families with xanthomatosis. Many factors may alter the manifestations of the effects of the main genes. They rarely produce absolute effects but determine the individual's capacities and his reaction under various conditions of the environment.

Occupation, physical trauma, psychic stress, tobacco, alcohol. Since fluctuations in the amount of epinephrine released from the adrenals and overproduction of certain fractions of the hormone of the adrenal cortex are thought to be atherogenic, it was natural to try to link occupation and physical and psychic trauma and stress with the incidence of atherosclerosis. Numerous statistical studies have been made with practically equal conclusions on both sides. Some writers have concluded that coronary atherosclerosis is more common in those engaged in professional and business careers than in those employed in the labor field. Others have denied this, and so the psychic genesis of atherosclerosis remains uncertain in spite of a general impression that stress is a factor. There is no doubt that Mönckeberg's medial calcinosis of the large arteries is more common in physical laborers than in brain workers, but that is another matter. It has also been shown that the type of occupation determines how the individual reacts to the acute complications of coronary atherosclerosis, the more physically active being more prone to angina pectoris but better able to handle episodes of acute coronary artery occlusion.

Tobacco smoking has been proved to be harmful in thromboangiitis obliterans and produces vasoconstriction of the peripheral arterioles in normal people. Nicotine exerts a pressor effect independent of that of epinephrine and may elicit allergy with the vascular system as the shock organ. Experiments on rabbits have shown that degenerative arterial lesions may be produced by repeated oral, parenteral or respiratory introduction of nicotine or nicotine-containing substances. Other animals may also show certain arterial lesions. It has been thought that excessive and prolonged occupational contact with tobacco or nicotine in the form of dust or spray or exposure in the form of smoke may be etiologically related to the development of atherosclerosis. Some effects of smoking have been increase in the systolic and diastolic pressures, acceleration of the heart rate, elevation of the basal metabolic rate, and decrease in the height of the T wave of the electrocardiogram. Smoking occasionally appears to precipitate paroxysms of angina pectoris, possibly by producing a sudden increase in the work of the heart. Patients with coronary artery disease seem to be more sensitive to the effects of nicotine, whatever the effect may be. Some people seem to be hypersensitive to tobacco, having such symptoms as sweating, dizziness, headache, tachycardia, premature beats, paroxysmal tachycardia and chest pain, with electrocardiographic and ballistocardiographic alterations. The latter changes may be similar to those of coronary insufficiency but are not affected by nitroglycerin (Russek et al[19]). The effect is much less marked when "denicotinized" cigarettes are smoked in normal people but not in coronary patients. The changes are otherwise the same in normal as in coronary patients and are probably due to direct myocardial action or effect on the cardiac ganglia rather than to coronary artery constriction. Whiskey may improve the ballistic response to smoking, probably by peripheral vasodilatation. These acute effects of smoking are one thing, the role smoking may play, if any, in atherogenesis another. To date there is no convincing evidence that smoking has an atherogenic effect. Nonetheless, because of the adverse effects of smoking, patients with known coronary artery disease probably would do best not to smoke unless they are made quite unhappy by the restriction.

Alcohol is in a different category from tobacco. Drinkers of hard liquor do not seem to have any more coronary atherosclerosis than non-drinkers, and patients dying of alcoholic cirrhosis of the liver show no more than the average amount. The thought has been more in the direction that alcohol may protect or at best help the patient with coronary artery heart disease. Because alcohol causes peripheral vasodilatation it has been a common belief that it dilates the coronary arteries and prevents attacks of mild coronary insufficiency such as angina pectoris. However, Russek's group[20] found no valid evidence that alcohol increases coronary blood flow. Their studies showed that alcohol is ineffective in preventing the electrocardiographic signs of myocardial anoxia induced by a standard exercise test in patients with coronary artery heart disease. Although alcohol increases the tendency to tachycardia and premature beats induced by tobacco, it does improve the ballistic response to smoking in many cases. The most that can be said of the supposedly beneficial effects of alcohol in cardiacs is that it may diminish the work load on the heart by peripheral vasodilatation and by its central action may relieve the anxiety that contributes to the appearance of symptoms. On the other hand, during severe coronary insufficiency, particularly when infarction results, alcohol, by its peripheral vasodilation, may further embarrass the coronary circulation.

Body type. The mesomorphic type of body build, i.e., the compact, muscular, "male" type, has been quite generally believed to be associated with proneness to develop coronary atherosclerosis and at a relatively early age. However, the experience of every medical practitioner attests to the fact that coronary artery disease occurs frequently in those with other types of body build, the ectomorphic and the endomorphic, as well as the mesomorphic. More study is needed along these lines. This subject is no doubt linked with heredity.

Age incidence of coronary atherosclerosis. Although clinically manifest coronary atherosclerosis occurs most frequently between the ages of 45 and 65 years, no age is exempt, especially in the male. The disease is not rare between the ages of 18 and 35. It was the commonest cause of nontraumatic death in our troops in World War II. Yater et al[16] collected 866 cases of coronary artery heart disease in our soldiers aged 18 through 39 years during that period; 450 men died as a result of the disease and 416 survived 1 or more attacks of acute myocardial infarction.

No one knows how fast or how slowly coronary atherosclerosis develops and progresses. It may exist in a subclinical state for years. Enos et al[21] found among 300 supposedly healthy young soldiers whose average age was 22 years (in 200 of the men) and who died as the result of trauma that 77 per cent of the hearts showed gross evidence of atherosclerosis. In 15 per cent there were atheromatous plaques causing luminal narrowing of 50 per cent or more, and in 3 per cent such plaques caused complete occlusion of 1 or more of the larger coronary arteries. It is conceivable that many of these men, had they lived, might have continued to be apparently healthy until their forties or fifties before the disease of the coronary arteries became evident clinically. We have all observed patients who lived for years after their first clinical episode of coronary artery heart disease, perhaps with paroxysmal episodes of coronary insufficiency, an experience which indicates that the disease waxes and wanes throughout its chronic course. The degenerative process may develop faster in some people than in others, and the rate of development may vary in different parts of the arterial tree.

In regard to the observations of Yater's group and of Enos', was the large number of cases in young men the result purely of a concentration of pathologic and patient material, was it an indication of what is "normal" for our young men, or was it due to abnormal conditions among the troops, such as higher fat and caloric diets and a life of more physical and psychic stresses? The answer is not possible at this time.

Ages of the lesions. Yater et al,[16] in their study of 450 hearts, divided the lesions of the coronary arteries into 3 grades on the basis of relative age of the lesions. According to this classification the age of the atherosclerotic lesions advanced with the ages of the patients. The degenerative changes of the media progressed as the grades of atherosclerosis advanced; actually, from the changes in the media one could establish the relative age of the atheromatous plaque. The earliest lesions (grade I) are those of simple plaque formation, the plaque being composed chiefly of moderately loosely arranged connective tissue, frequently containing young fibroblasts but no calcium and few, if any, cholesterol crystals or lipids. There is slight to moderate damage to the internal elastic lamina and minimal fibrosis of the media below the plaques. Grade II lesions represented the stage of deposition of lipids and their ingestion and liquefaction by macrophages, while grade III lesions represented the late stage of hyalinization, with remnants of lipids in the form of cholesterol crystals remaining.

Enos et al found the earliest lesions to be similar to those of this gradation. An interesting observation of theirs was that youthful Japanese soldiers showed coronary lesions as well as the Americans but that much more often the plaques were devoid of lipids. One must recall that the Japanese diet is low in fat.

Thus it may be postulated that although the diet and fat metabolism may be important in atherogenesis, this is not the whole story, since the early lesions in man contain little, if any, lipid.

Surgical research and treatment. After thousands of experiments on dogs to develop ways to increase vascularization of the myocardium, Beck[22] has devised 2 operations for patients with clinical coronary atherosclerosis. The Beck I operation combines production of inflammatory pericarditis with partial occlusion of the coronary sinus. The Beck II is a 2-stage operation in which the coronary sinus is arterialized by a vein graft between the aorta and coronary sinus. The results of the 2 operations are similar, i.e., a decrease in angina pectoris and improved work capacity in about 80 per cent of patients, but the mortality in the Beck I is 7.5 per cent and in the Beck II, 26.1 per cent. It is postulated that the operations will decrease the morbidity and mortality of acute occlusions and prevent many deaths from what Beck calls "mechanism" failure, i.e., cessation of cardiac function without acute occlusion. The operations should not be done within 6 months of an infarction or in patients with congestive failure not completely controlled by medical management.

Vineberg[23] has been employing another operative approach to the problem of treating angina pectoris and protecting the myocardium against coronary occlusion or insufficiency. He transplants the internal mammary artery into the muscle of the left ventricle. Improvement occurred in 77 per cent of 28 patients who survived the operation out of 36 operated on.

These operations, and especially the Beck I, deserve much more consideration than they have up to now, since there is no other form of treatment of established value. The main problem is to convince the patient, who between acute episodes of coronary insufficiency or infarction often feels perfectly well.

Diagnosis. There is no way to diagnose coronary atherosclerosis until myocardial damage has occurred except by presumption from a typical history of angina pectoris or often electrocardiographically by means of a stress test when the routine electrocardiogram is normal. Also, accurate prognosis is impossible. A study of 950 men who died of coronary artery disease revealed that death occurred suddenly in over 50 per cent of men under 30 years of age and in about 40 per cent in men aged 30 and over (Yater et al[24]). The percentages of those dying within 24 hours ranged from 85 in the men under 30 to 45 in those aged 50 and over. Only about 40 per cent of the 950 men had gross myocardial infarcts, the percentage increasing from about 20 in men under 30 to about 50 in men over 40. Thus, there was a large number who died of coronary insufficiency or of mechanism failure, as Beck calls it. About 13 per cent did not have more than moderate narrowing of any coronary artery, and thrombosis of one or more arteries, fresh, organizing or old, was found in only about 50 per cent of the men. Sclerotic occlusion alone occurred in the other 37 per cent. These figures show that coronary thrombosis can be diagnosed only by the prosector. It should never be a clinical diagnosis. The only clinical diagnosis of the acute episode is coronary insufficiency, with or without myocardial infarction.

CONCLUSION

This discussion of the subject of coronary atherogenesis and atherosclerosis has been sketchy and incomplete. Credit cannot properly be given in such a brief paper to the hundreds of research men who have contributed knowledge in this field. Although much has been learned and great progress made toward clearing up the mystery of atherogenesis, the final elucidation is yet to come.

At present it appears that atherogenesis is the result of a combination of factors. In hereditarily susceptible people the regulatory functions, particularly of the liver, concerned with the metabolism of lipids, lipoproteins and cholesterol are not entirely adequate, especially with a diet of relatively high fat content, both animal and vegetable. The stresses of life may affect vascular tonicity and thereby metabolic function. The metabolic activity of the arterial wall itself may be hereditarily inadequate under certain conditions. The extra mechanical strain at certain points in the arterial tree makes these portions of the arterial wall more susceptible to impairment of their own metabolic activities. Finally, the sex hormones enter in some way into the picture.

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REMARKS ON THE PSYCHOLOGIC ASPECTS OF ANESTHESIA*†

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THOSE of you who have undergone anesthesia and surgery may recall the vividness and impact of these events upon yourselves, and even casual observation of patients on the surgical wards and operating suites will confirm your own experiences. It was in the latter setting that, as a member of a surgical team, I became familiar with some psychologic problems of anesthesia and am presenting herein some of my impressions and conclusions.

Recent valuable advances in the use of preoperative medication have not obviated the necessity for considering the emotional problems and psychologic technics in dealing with the surgical patient. The surgical patient is a human being who is undergoing an acutely threatening and painful experience and is thereby entitled to whatever ameliatory measures are possible. The consuming problem of public relations in medicine best starts with the patient himself, and patients are much more impressed by seemingly small acts of consideration and comfort than by matters of technical brilliance about which they are not aware. Also, the precipitation of functional postoperative disorders, from "nervousness" to psychosis, is to some degree connected with specific dangers to the emotional integrity of the patient imposed by the anesthetic and surgical experiences[1]; consideration of this problem is then indicated as a preventive measure.

In addition, there may be direct and critical connections between the emotions involved and the course of the anesthetic. One can realize the many possible complications if one considers the numerous physiologic responses to fear and adds to that the additional pharmacologic and mechanical insults of the anesthesia. As examples, administration of a spinal anesthetic may not be possible with a struggling patient; larger doses of preoperative medication or induction agents necessary for disturbed patients will also produce severe physiologic depression; and the second or delirium stage of general anesthesia may be prolonged, thereby increasing the possibilities of associated serious complications.

Before investigating the specific nature of the fears associated with anesthesia, it is important to recognize that fright is omnipresent and important, manifesting itself in different ways. The conventional appearance of anxiety, with tense facies, tremulousness, startle reaction, perspiration, etc., is easily observed. However, there are other evidences of anxiety which should be recognized: depression, social withdrawal, inappropriate elation, unsolicited denial of fear, querulousness, the physiologic concomitants of fear, such as pulse rate, blood pressure and respiratory changes, and perhaps most importantly, no overt show of fear. It is in the latter situation, in which patients exercise such rigid control, that the most difficulty may be expected.[2] It should be assumed that every person undergoing this experience is afraid. Further, it is possible to delineate the sources of anxiety by observation of the behavior and noting the spontaneous expressions of the thoughts and feelings of the patient.* Parenthetically, it was interesting to note that the fear of the anesthetic is more intense and frequent than that attributed to the surgery.

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† I have purposely excluded specific problems concerning pediatric and obstetric anesthesia, since these are now specialized fields of research. In general, the same psychologic mechanisms and conclusions are applicable, although the technics of dealing with them are more highly refined.

Fear of death is common and may be expressed overtly but at times by insistent denial; understandably this may be based on hearsay, but also it can be a projection on the anesthesia of a fear existing within the patient. Patients speak about a fear of the unknown, especially in connectio withn the anesthetic. Significantly, this may be related to the patient's impression that the surgery is a very concrete matter while the anesthesia is a vague process usually not connected with any specific person.

Characteristically associated with the anesthesia is the fear of losing control of actions or speech, usually in forbidden areas such as anger or sex. Although this represents a fear coming from within the patient, it should be pointed out that there is some realistic background because of the actual loss of control with older anesthetic methods and the popular association of "truth serum" with a popular anesthetic agent. It is known that the anxiety associated with loss of control is connected with an underlying expectation of retaliation of punishment by authority figures. The attitude of hospital personnel is then a matter of some importance since they represent, to the patient, people in authority. The relative importance of the fear of losing control is demonstrated, almost humorously, by the observation that in questioning patients about their recent anesthesia they almost never said, "Did anything go wrong with the anesthetic? Were there any complications? Did I almost die?" but almost invariably said, "Did I do anything wrong? Did I say something?"

Some anxieties are concerned with the patient's difficulty in placing his complete trust in others, as might be expected, since the giving up of one's consciousness is the ultimate act of subjection and helplessness. Patients uniformly request that they see their surgeon before the operation, and they express concern that the operation will be performed by someone else (interne or resident) or perhaps for experimental purposes. Apprehension that the operation would be more extensive than planned, with mutilating or castrating procedures, was encountered. Frequently patients spoke of the fear that the operation would be started before they were completely asleep or anesthetized. Although most often patients wish to be asleep during the operation, and often even before entering the operating room, some patients expressed interest and actually demanded that they stay awake and observe the operation. One would expect that this is an indication of extreme distrust, so that it was not surprising that these patients were often so disturbed that surgery performed without loss of consciousness would have been technically difficult and psychologically ill-advised.

Spinal anesthesia has certain associated psychologic problems. Patients anticipate with dread the sight of the operating room and being awake during the operation. "Spinal headache" seems widely known, possible paralysis and injury to the spine are discussed, and unexpected remaining paralysis and anesthesia following surgery may stimulate panic. I thought that the giving of a spinal anesthetic to a patient who objected to it was one factor connected with the development of postoperative neurotic complaints associated with the anesthetic. Farber,[4] in a separate study of patients with postoperative neuroses, found that patients who had experienced spinal anesthesia and were awake at the time of operation reported their memories of the operation and conversations by the staff, sometimes with distortions and attached significance to these traumatic events; he believed that this was an important factor in the precipitation of the neurosis.

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* Retrospective psychoanalytic studies, like that of Deutsch,[3] on adults' fears pertaining to the anesthetic experience disclose characteristic meanings of the trauma to the patient, e.g., fear of death, losing control, and so on. Direct observation of the patient around the time of surgery, such as undertaken in this study, gives evidence that these conflicts are actually stimulated and are present at the time, and are not the result of retroactive distortions.

Frequently we assume that preoperative sedation produces a lack of awareness of, and an amnesia for what occurs in the operating room. This is an unjustified assumption; not only do apparently well sedated patients recall their experiences vividly, but certain jarring events may be seen to influence the patient's behavior, physiologic responses to fear, and even the actual smoothness of the anesthesia. The physical jars would be loud noises, bright lights, and rough or surprising handling of the patient. The operating milieu also may be psychologically traumatic to the patient because of the sight of instruments and blood, anxiousness and tension in staff members, discussions of technical matters, and the ever present, grim humor of the surgery.

One factor determining the patient's attitude toward proposed anesthesia is his previous anesthetic experience, recollection of which may be quite vivid if it were an unpleasant one. A previous spinal anesthetic with poor preparation, rough handling and memory of operating room events, or a previous ether anesthesia with feelings of smothering, struggling, etc., predisposed patients to object to, and be apprehensive about a repetition of these technics.

Based on these findings, it is possible to formulate suggestions for the psychologic handling of patients who are to undergo anesthesia. Although consideration of these suggestions is a matter of attitude, and the expenditure of very little time on the part of anesthetist and surgeon, it is essential that the awareness of the problem be transmitted to all of the staff dealing with patients.

Preparation for the anesthesia should be started by the surgeon when he first discusses the proposed surgical procedure with the patient. At that time he can inform the patient that there will be an anesthetic and a definite person in charge of it. This is an opportunity to allow the patient to express whatever questions, doubts, or strong opinions he may have about the anesthetic, which can then be handled in a reassuring and truthful manner. At the time the operation is discussed with the patient it might be well for the surgeon to inform the patient what the limits of the operation will be in order that the patient knows that the surgeon does not have carte blanche to remove organs which the patient fears might be removed.

On entering the hospital, or at least the day before surgery, the patient should be seen by the anesthetist, who is preferably in street clothes and who identifies himself as the sole person in charge of the anesthesia. While evaluating the patient, the anesthetist prepares him for the coming procedure by explaining, in a reassuring manner, the routine of the following day and the reasons for certain procedures. He allows the patient to ask whatever questions he wishes, no matter how silly they may seem, and answers them with definiteness and assurance. He may also anticipate, either by implication or direct statement, some of the universal fears pertaining to anesthesia by stating that the anesthetic under modern methods is safe, painless, not uncomfortable; that the patient will see the surgeon before the operation; and also that there is no possibility of the patient losing control of his actions or speech, dying, struggling, or of having nightmares, and so on.* It is well to remember that "ten minutes of conversation is worth one quarter grain of morphine." From the psychologic standpoint the patient's choice of anesthetic, even though, or especially when, it seems based on unreasonable conclusions, should receive consideration as one of many factors governing the choice of anesthetic, and his coöperation is solicited. An exception to this would be the occasional request of a patient who wishes to remain awake at the time of the operation, and this should be evaluated on an individual basis, keeping in mind the psychologic trauma and technical difficulties involved in dealing with a disturbed and distrustful person who is awake. An occasional comment or question in which the patient is asked for his permission or consent, even though he has already implied it, is of value in having the patient feel as if he has some say in the matter and is not completely under someone else's control.

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* Concerning explanations to the patient, it should be borne in mind that there are some people (poorly educated, unsophisticated, or immature) with whom this type of elucidation would merely stimulate further anxiety, and this is an individual matter. However, with these patients one can still provide effective technics, such as quiet surroundings and a supportive and protective attitude of the medical staff.

The anesthetist should see the patient the morning of the operation in the manner suggested previously. He should be sure, firm, unhurried, calm, confident, and gentle. Explanations of procedures as they are performed (starting an intravenous, putting the mask on the face, use of straps, and so on) should be given to the patient, and surprises or rough handling should be avoided. Naturally, painful or disturbing examinations should be avoided before the patient is anesthetized, and surgical preparation or procedures should not be started until the patient is asleep. It is essential that the surgeon see and converse with the patient before the anesthetic is given, for a number of reasons of which the psychologic is only one, and he should do this sans cap and mask, and preferably in street clothes.

Whenever possible the patient should be given the anesthetic in an induction room which is quiet and has a minimum of exposed apparatus and instruments. If there are facilities, extremely disturbed patients may be given the anesthetic or a basal anesthetic in their own room prior to going to surgery, as in the case of "stealing the thyroid." When these measures are not possible, then others are suggested. Bright lights, the sight of instruments and blood, loud noises, and conversations should be avoided, and disagreements or necessary conversations involving last-minute preparations or controversial subjects should be conducted out of earshot of the patient. The surgeon, especially, should not enter into such exchanges or appear anxious, undecided, or hostile, since he is the most important figure to the patient. The macabre humor of the operating room, as well as mention of amputation, scalpel, brace and bit, and so on, should be reserved for the time when the patient can best be in a position to enjoy it, namely, when he is asleep.

It is best, from the psychologic (and often from the technical), standpoint, to have the patient asleep during the surgical procedure, even when a spinal anesthetic is used. The occasional patient who prefers to be awake during a major or important operation should be evaluated carefully. When it is absolutely necessary from a technical standpoint to have the patient awake, it should be kept in mind that the patient can hear and reflect upon what is going on, and conversations should be limited in terms of hilarity, technical matters, and disagreements.

There should be someone present when the patient emerges from the anesthetic. In general, the postoperative treatment is similar to that given preoperatively. The patient may be given a chance to ask questions, and explanations and reassurances can be given. Ordinarily the occasional postoperative neurotic symptom should be explained matter-of-factly but otherwise ignored.

Although the observations and suggested methods have been based on psychiatrically oriented clinical impressions, it is apparent that anyone who devotes any thinking to the

(*Continued on page 218*)

THE EVALUATION OF PERIODIC EXAMINATIONS OF EMPLOYEES*

Benefits of Health Maintenance for the "Whole" Man

E. P. LUONGO, M.D.

Medical Director, General Petroleum Corporation, Los Angeles, California

A DISTINGUISHED British physician recently questioned the advisability of "periodic medical overhaul."[1] He wonders whether the benefits derived from periodic examinations are worth while when compared to the expenditure of time and money and the risk of "hypochondriasis" or "disease-mindedness." He asks whether it is reasonable to emphasize the value of periodic medical examinations when persons are "well," and whether these examinations didn't give the examinee a sense of false security, especially when "the most elaborate examination fails to discover a mortal disease."

The true evaluation of any procedure, medical or otherwise, must be determined in terms of benefits it brings as compared to disadvantages of the procedure. These benefits can be expressed in a positive fashion, or they can be expressed in terms of preventing losses. Perhaps if we can weigh advantages against disadvantages in periodic examinations of employees, we can come to some idea as to the true value of periodic examinations in health maintenance.

We should, of course, take into consideration the fact that several different groups are concerned. The interests of employee, employer, the medical profession, and the community must be analyzed individually if a true, over-all picture of the net value of periodic examinations of employees is to be accurately determined.

DEFINITIONS

Definition of health. What is health as it relates to preventive medicine? I am sure you will all agree that health does not consist only of being free from mental or organic disease. I would suggest that the conditions for health in any individual are:

A. Past history
    1. A wise "selection" of antecedents in preceding generations.
    2. A reasonably happy and emotionally-secure childhood.
B. Present or adult history
    1. A satisfactory home and occupational situation.
    2. Freedom from organic or mental diseases.
    3. A sense of humor.
    4. Opportunity for self-expression in creative endeavor.
    5. Sufficient rest and noncompetitive but productive leisure, with ability to change pace.
    6. Physical, mental, cultural, and educational fitness for occupation.
    7. A true sense of humility toward one's ability, both in success and in failure.
    8. Adequate social mores or roots in the community, and a willingness to bring

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* Adapted from an address delivered before the Section on Preventive and Industrial Medicine and Public Health of the American Medical Association at the 103rd Annual Meeting of the AMA in San Francisco, Calif., June 22, 1954.

benefits to the community without thought of material gain. This requires a charitable attitude toward one's family, friends, and neighbors.

9. Ability to adapt to age (more psychologic than physiologic).
10. A spiritual point of reference outside of secular or material existence, and sufficient faith to leave some things beyond mortal control to the "powers that be."

Scope of preventive medicine. In its present concept preventive medicine is generally applied to three levels of endeavor[2]:

1. The prevention of known preventable diseases.

2. The prevention of disability and death from curable chronic diseases.

3. The early detection of some of the nonpreventable and noncurable diseases with a view of modifying or delaying some of the disabling consequences of these diseases.

We should now add another category of diseases under preventive medicine to include the so-called "stress" diseases, characterized first by functional, and later by organic derangement.[3]

Hypochondriasis. What is hypochondriasis or disease-mindedness? Hypochondriasis has been defined as a persistent "overconcern or obsession with the state of health." Among the public at large normal concern with disease and its prevention nowadays is quite comnon. This is seldom iatrogenic or physician-induced. Rather, it is a reflection of an enlightened public which has responded to health education through various media, including an evergrowing number of campaigns for health research funds. I do not believe that we can consider this reaction, by the very nature of its induction and extent, as being mass hypochondriasis. It is an intelligent disease-consciousness.

With an understanding of the definition of health, let us look at the method employed by General Petroleum in its program of periodic examinations of employees.

The Method

The method of periodic physical examinations for 6,000 employees in General Petroleum Coroporation consists of a planned procedure of scheduled physical examinations furnished at regular intervals, depending on age and occupation. The spirit governing the examination is one of spontaneous coöperation, based on attractive benefits pointed out to employees through appropriate educational media. Examinations are offered to all employees. Those under 40 are scheduled every 2 years, and those over 40 every year. Some employees with certain physical defects may be examined every 3 or every 6 months. Some in occupations with certain potential occupational hazards are examined at more frequent intervals.

Physical examinations are performed either by physicians of the medical department in the Company, or by private physicians (usually general practitioners or internists) designated by the medical department. The scope of the examination is determined by the medical history regarding signs or symptoms showing departure from normal organic, emotional, or mental health, guided to some extent by a brief questionnaire filled out by the examinee. Questioning may relate to human or job relations, with particular reference to conflict at an occupational level. Some psychologic evaluation pertaining to job interest, aptitude, or job placement is done when indicated. Insight into family relations is obtained, when necessary, by tactful questioning regarding family problems, marital conflicts, and financial worries. With older employees, particularly those reaching retirement age, an attempt is made to evaluate adjustment to age, both physiologic and psychologic. Questions regarding health habits, including diet, physical exercise, use of tobacco and alcohol, are included, as well as questions about hobbies or avocations, all of which are considered part of the medical history.

It may be well to point out here that this program applies to all employees, and there is no attempt made to evaluate periodic examinations with any line of demarcation drawn between executive and nonexecutive. Is there any peculiar immunity or predisposition to disease (functional, mental, or organic) in either group, except as to a higher age factor among executives generally? I ask this because unfortunately there is a growing tendency today to overemphasize the health problem of executives. In our experience we have found that executives are no more prone to ulcers, coronary disease, or various neuroses involving "dependent behavior" than are the nonexecutives in the same age group.

There is a practical limit as to the scope of the examination, both for executives and nonexecutives, with regard to laboratory procedures. This limit is determined by cost for which the company can reasonably assume responsibility. Generally we follow the recommendations of the examining physician regarding the need for additional laboratory procedures, especially when it is obvious that without this additional data he cannot intelligently advise the employee.

Within this over-all framework lie the three separate appraisals which in toto add up to our program. The first of these is the appraisal of organic health.

THE BENEFITS

Benefits to employees from the appraisal of organic health. By regular examination, healthy employees are reassured against doubts as to their physical condition and hypochondriasis is reduced. Through advice given to employees regarding physical defects which may be found employees are assisted in maintaining their health. The impact of disabling organic disease is reduced by early detection, and employees are encouraged to seek treatment from their private physicians before irreparable harm is done. In General Petroleum the following has been experienced, with due consideration given to other influencing factors including age of employee population:

1. The incidence of disabling and fatal cardiovascular heart disease has been decreased 15 per cent since 1948.
2. There have been no disabling consequences among diabetics since 1950.
3. The incidence of overweight has been reduced from 25 per cent of employee population in 1951 to 15 per cent of employee population in 1954.
4. Mortality from malignant lesions of internal organs in males has dropped 33 per cent since 1948.
5. Disabling diseases of the digestive tract have dropped 20 per cent from 1948 to 1954.
6. In females the mortality from breast and pelvic malignant disease has decreased 50 per cent since 1948.

As a result of reduction in morbidity of disabling illnesses there has been a concurrent reduction in wages lost due to absenteeism for chronic degenerative and malignant diseases.

To General Petroleum as an employer the appraisal of the organic health of employees yields these benefits:

Benefits to employers from the appraisal of organic health. Between 1948 to 1954 the Company has experienced less industrial accidents due to preëxisting physical disabilities in all age groups. As a result, Workmen's Compensation costs for certain types of injuries have been reduced. For example, costs for industrial hernias have dropped 40 per cent since 1948. Costs for serious back injuries were reduced 33 per cent. We have had no "industrial" heart cases in 6 years.

In the field of industrial hygiene the physical examinations have enabled the Company to control more effectively possible unhealthful exposures in the working environment. We have been in a better position to meet the requirements of laws and regulatory orders involving the health of personnel on the basis of information obtained on physical examination which has been transmitted to the management. The medical profession also benefits from the appraisal.

Benefits to the medical profession from the appraisal of organic health. In discussions with private physicians we have found that the majority are of the opinion that they have been able to work more effectively with their patients whose organic troubles have been detected early. They are able to follow the case from the beginning, maintain proper medical control, and prevent irreparable damage. Since 50 per cent of employees examined are referred to private physicians or dentists for minor or major defects, there has been an increase in frequency of contact between private physicians, dentists, and many of their patients. In our dealings with private physicians we find that most of them appreciate the benefit of a specialist's knowledge (the industrial practitioner) in difficult disability cases involving job placement or retirement.

The medical profession gains position and prestige by having its members participate in periodic examination programs which deliver benefits to groups outside of the profession, such as employers, employees, and the community at large. Finally, the community at large benefits.

Benefits to the community at large from the appraisal of organic health. The economic "health" of a community is affected by the health status of workers living in that community. When a communicable disease, such as tuberculosis, is detected in its early stage at the time of periodic examination, the spread of this disease is inhibited. When there are a maximum number of workers reporting to the job and working at an optimum level of efficiency, the butcher, the baker, and the banker are benefited. In preventing disabling consequences of diseases there is a reduction in the number of families suffering large economic losses from serious illness or early death of the bread-winner. Some of these families could become public charges.

These are the benefits to the employee, the employer, the medical profession, and the community at large which spring from the first of the three appraisals used in our program of periodic physical examinations.

Appraisal of mental health and psychosomatic complaints. Psychosomatic or mental health problems are considered at the time of periodic examination of the employee, or on special referrals to the Medical Department by foremen and supervisors who may suspect that the employee is having emotional difficulties on the job. In recognizing such an employee as a complete individual with a home, family, financial worries, as well as problems related to other employees and supervisors, the majority of these cases can be handled by analyzing the stresses with the individual. We attempt to help the employee gain an understanding and insight into his behavior.

Benefits to employees from the appraisal of mental health. Benefits derived from periodic examination in the field of emotional and mental health are as important as those related to organic health. By considering an employee as a total or "whole being" we have been able to assist and counsel him on problems for which he often hesitates to seek counsel from other qualified sources. As a result, the incidence of "nervous breakdowns" or severe disabling psychoneurosis among employees in this company has diminished 25 per cent during the 6-year period between 1948 and 1954. When we show an interest in their emotional problems, employees receive a real feeling of "belonging" in their work with the company.

Benefits to the employer. There has been a reduction in explosive human relations problems due to emotional upsets. Industrial accidents due to emotional problems also have been fewer. The company has another channel of communications with employees, and the trained observation powers of medical personnel are available to management in spotting personnel and human relations problems. By showing a concern for employees as individuals the company benefits in improved morale.

The management has been able to avoid errors in the efficient utilization of personnel, in some instances as a result of reliable evaluations of employees' physical and mental capabilities supplied by the medical department.

Benefits to the medical profession resulting from appraisal of mental health of employees. The benefits to the medical profession produced by this appraisal grow out of the fact that the type of communication involved in sounding out conflict or mental stress often is difficult in the busy private practitioner's office. Frequently mental health problems are first brought to light on periodic physical examination. By transmitting this information to the private physician, we assist him in his communication with the patient. He can benefit by being appraised of occupational and nonoccupational factors of which he may not have been aware previously.

Benefits to the community relating to the appraisal of mental health. To the community at large the appraisal means that there is a reduction in the number of disabling neuropsychiatric cases in the community, and this decreases the number of families suffering economic losses. In addition, counseling relating to mental health at the time of periodic examination frequently spares already overcrowded psychiatric hospital facilities in a community.

POSSIBLE LOSSES OR LIABILITIES OF PERIODIC EXAMINATIONS

From the employee's viewpoint, if information on periodic physical examinations is used improperly and causes him temporary or permanent economic losses in reassignments, lack of promotion, or termination, from his viewpoint a scheduled periodic examination can be a poor quality action and a loss. In this connection we find that only a small percentage of employees (less than 0.5 per cent) with certain disabilities of a temporary or permanent nature are affected in their job security.

Some employees also sustain losses in having a false sense of security following a periodic examination and later experience a heart attack or some other serious disease (2 to 3 per cent).

If a periodic examination program is carried out in a manner which causes frequent labor relations difficulties, the procedure would have to be considered as a possible poor quality action and the difficulties would be considered losses. We find that occasionally a decision resulting from a periodic physical examination becomes a labor relations matter, but these situations usually can be resolved amicably by a frank discussion between the industrial physician and union representatives. In these discussions we agree to review medical evidence submitted by the employee's private physician and are happy to discuss the diagnosis with the private physician. If we cannot reach an agreement we will offer the patient an examination by a specialist in the particular field of medicine involved.

On the liability side of our evaluation we must certainly list the expenses of such a program. The time of the physicians involved, be they staff or nonstaff men, costs money. So do the facilities which must be provided, including the nurses, and the clerical and administrative people.

So there we have the assets and the liabilities which grow out of a program of periodic physical examinations. We are almost ready to "strike a balance."

SUMMARY AND CONCLUSIONS

In providing periodic examinations for employees American industry is contributing its share toward the improvement of health standards in communities.[4]

All of us in medicine should support these programs to improve the health status of citizens in the Nation so that preventable, remedial, and ameliatory diseases will be a rare occurrence in our clinics and hospitals.

The value of periodic examinations has been challenged. Some suggest that the benefits derived from periodic examinations may not be worth the cost in time and money and the risk of creating hypochondriasis in employees.

We have drawn up "balance sheets," each recording assets and liabilities of periodic physical examination from the differing points of view of these groups. As a result it has been determined in General Petroleum Corporation that:

Periodic physical examinations yield a net gain. A maximum number of workers are kept on the job at an optimum level of efficiency. Industrial accidents due to emotional upsets are fewer, and Workmen's Compensation costs are reduced. The management obtains another channel of communications with employees and gets the benefit of the trained observation powers of medical men. The evidence of a true concern for the well-being of employees has been found to improve morale and to increase the acceptance of the Company by the general public, creating a better reputation in the market place, increased confidence among stockholders, and a more coöperative attitude from regulatory bodies. These "assets" more than offset the "liabilities" incurred by the Company, chiefly the cost in time and effort.

To the employee, periodic physical examinations also yield a net gain. Examinations reassure healthy employees. Employees found to have organic disease receive information on these disabilities in time to seek treatment from their private physicians before irreparable harm has been done. Experience has shown that many would not have received such information until serious symptoms appeared.

General Petroleum's experience has shown significant reductions in the incidence of heart disease, overweight, back disabilities, hernias, digestive tract diseases, and in disability and mortality due to malignant lesions.

In the field of mental health the periodic physical examination has given employees assistance and counsel which often they hesitate to seek in the busy office of a private practitioner.

Employees lose less time at work through sickness and disability.

These "assets" more than offset the "liabilities" incurred by a few employees through periodic physical examination. About 0.5 per cent with disabilities of a temporary or permanent nature are affected in the jobs by information gathered through these examinations Only a few employees develop a false sense of security after such examinations.

Periodic physical examinations of employees are valuable, beneficial, and profitable to employees, to employers, to the medical profession, and to the community at large. I recommend them for employees and others, including members of our own profession. We physicians too must run this race of life. We must also be in good "health" (mind, body, spirit) in order to render long and effective service to employees or patients. If we do not observe the fastings and other conditioning of body and mind, in advising others we may not be fully effective in the healing art and prematurely fall by the wayside in our mission.

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President's Page

AN OPPORTUNITY

Those of you who did not attend the Business Meeting of the Society on March 2 missed a very instructive and challenging program. The vital importance to all physicians of the subject discussed undoubtedly accounted for the large attendance.

It appears that at last there is good probability that the medical and legal professions in the District of Columbia will "get together" in a mutually helpful effort to deal with baseless malpractice suits.

It seems that criticism has been leveled in both directions—some lawyers being accused of looking for an "excuse" to sue, and some physicians are charged with giving "not too honest" testimony. One suspects that most of these accusations have little factual basis. Nevertheless, there are problems to be worked out and joint meetings of friends within both professions should prove profitable. Those in our Society who have complaints to make should do so to the Committee on Professional Liability Insurance. Its members are anxious and willing to hear them and, if warranted, to take them to their meetings with representatives of the Bar Association.

We are also obligated to put our own house in order. This is essential if we are to reduce malpractice actions and once again benefit by having group insurance coverage.

Preston A. McLendon

Editorials

WHAT NEXT FOR MEDICAL SERVICE?

Washington's Blue Shield plan now has reached a new crossroad in its progress as the physicians' own plan. The great social forces which are changing the economy of medicine make it inevitable that Medical Service "go along" in broadening its benefits or "wither on the vine."

The large and powerful interests which are interpreting social force and pressing to influence expansion in the health service field include not only unions and their welfare groups, commercial insurance companies, and many hospital and physician groups, but also all phases of the Government.

It is increasingly clear that those who supply the services can have a controlling voice in the program only by the assumption of real responsibility for keeping its cost in line with the community's ability to pay.

Blue Shield has pioneered development in the field of prepaid medical care. Blue Shield can continue to lead the way in this area if the physicians wish to do so enough to give what it takes. Blue Shield alone can provide the patient with independence in his choice of physician and, at the same time, guarantee that the fee will provide full or reasonable coverage for the cost of the service. Thus, from the patient's point of view, Medical Service can provide the answer in Washington. The question we must answer is: "Will it?"

We have no choice but to try. The form of our effort too is now evident.

We must work toward establishment of medical care in the hospital to supplement the surgical and obstetric coverage now offered. We must extend our office care program to include certain additional surgical and medical services. We must take on a program of coverage for major medical expense which will additionally involve some home care. With all of these changes we must extend somewhat the service benefit principle. This will involve a review of the balance between fee schedules and income levels. Also, the profession has the need to face the problem created by certain additional charges to patients only slightly above the stated income levels.

The stake of physicians in this program is continuing control of the form of medical practice. The stakes are high but the game can be won. It's up to us to win it.

Donald Stubbs, M.D.
President, Medical Service of the District of Columbia

A NEW FEATURE IN MEDICAL ANNALS

Beginning in the fall of 1955, the Medical Annals will publish a series of review articles on topics of current medical interest. A special committee, consisting of Dr. W. Proctor Harvey, Dr. W. Montague Cobb and the writer, has been appointed by the Editor to develop this project. The committee will choose the topics for review and will then, to the best of their ability, select the particular physician in the Washington area best qualified to write on

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

a certain topic. This physician will receive a direct letter requesting him to prepare such an article for use in the Annals.

Perhaps we should pause at this point to observe that, with the blossoming of medicine in the Washington area, it is possible to find physicians here in almost every phase of research and practice who are nationally known authorities in their field. The committee does not anticipate any difficulty in finding physicians who are competent for this task. Whether these men will have the time for the job is, of course, another matter.

The authors will be asked to cover their topics in the broadest possible manner compatible with the over-all policies of our journal. Illustrations will be used to the extent that the subject matter requires. Normally a generous bibliography will be included. In short, each article will serve as a valuable reference for the serious student of the particular topic.

These articles will be given special treatment in the Annals so that they will be convenient to use as reference.

The series will appear for about twelve months. At the end of that time the project will be evaluated by the Editorial Board to determine whether it should be continued. The success of the program depends upon the coöperation of those who will be asked to participate.

T. M. P.

A CENTURY OF ANESTHESIA

Whether to Morton, Long or Wells goes the credit of the discovery of ether anesthesia, there is little doubt that the practical use of it began about one hundred years ago; but the light of this agent was dim and fitful for the first fifty years, then it took on an expansive glow, and, at present, is a brilliant beacon in the world of surgery.

After its discovery, about ten years elapsed before it was an accepted drug to induce unconsciousness. It was Oliver Wendell Holmes who popularized the name "anesthesia," but the Greeks long before had a word for it. Before the use of ether, operations were performed under the influence of narcotics, sedatives, alcoholic potions, and many without any provision for the abolition of pain. Even in the War Between the States many amputations were done while the patient was held by assistants, or he had the fortitude and courage to endure the agony.

In the early days of ether the administration was simplicity itself. A mask was made of a towel folded upon a newspaper in the shape of a cone, and into this receptacle a small quantity of ether was poured, and the cone placed over the nose and mouth of the patient. It was held snugly in place while the patient, struggling to overcome the vapors of ether and carbon dioxide, finally reached an unconscious state. Then the mask or cone was removed at intervals and more ether added as indicated.

There were few changes in this procedure until the nineties, when the "open method" was introduced. This consisted of a small wire frame, covered with a layer or two of heavy cotton cloth, upon which ether was dropped almost continuously. This was a decided improvement because it admitted some atmospheric oxygen during the anesthetic state. In the meantime, chloroform appeared, and Dr. John Snow, the first to specialize in anesthesiology, successfully used this drug when Queen Victoria of England gave birth to Prince Leopold. Chloroform was popular for many years, but it became apparent that its advantages were outweighed by its disadvantages, and it is rarely used at present.

At the turn of the century anesthesia came into its own. Nitrous oxide was added to eliminate the stage of excitement which commonly attended plain ether anesthesia.

World War I expanded the demand for

surgery and better anesthesia, and the response was immediate. Gwathmey and Flagg each wrote a volume on the subject of anesthesia, and it was not long before physicians with hospital affiliations began to specialize in this field. Ethylene and cyclopropane entered the field in 1929. New masks or inhalers were devised to mix and measure the anesthetic agents. About this time novocaine became popular for local and spinal use, stimulated by Pitkin's modification and Labat's technic. Better records were introduced which dealt with all phases of anesthesia. The anesthesiologist was no longer just a handy man, but a member of the surgical team.

The last decade has seen the refinement of the anesthetic apparatus, the introduction of barbiturates, the use of curare and the other relaxants, the perfection of the endotracheal administration, and the efficient methods of resuscitation in respiratory and cardiac arrest. It has made it possible for surgery to enter new domains, especially the pulmonary and circulatory systems, with comparative safety.

The anesthesiologist has risen in stature. He knows his patient's capacity for the anesthetic prior to the operation; he prescribes the preparation for his part in the operation and selects the anesthetic best adapted, and he takes complete charge of the anesthetic state until the patient reacts. He is qualified to meet emergencies and postoperative complications related to anesthesia. Year by year, the anesthesiologist is proving his value as an assistant and consultant. National organizations have been established, with high standards to qualify for membership, and research is progressing under their leadership.

The progress of anesthesia has not been surpassed by any other of our specialties. It is not necessary to cite the almost negligible morbidity, the exceedingly low mortality, or the tranquil induction of anesthesia to remind us that today the medical profession is blessed with pharmaceuticals and a group of men to employ them. They have contributed their share to the healing art.

C. S. W.

In and Out of Focus

BY THE OBSERVER

Prepaid Medical Care in Perspective

Prepaid medical care plans have come a long way in the past 25 years. Even the most sanguine observer would have been hesitant to prophesy their phenomenal growth. In looking back, one is impressed by the various stages of their development and the formidable obstacles which confronted the advocates of this method of paying for medical services.

The 1930's were years of exploration. As was inevitable, pioneers frequently met with criticism, rebuffs, and scorn. Among them were physicians who, because they differed with the majority of their colleagues as to the need or even the desirability of prepaid medical care, found their lot an unhappy one. Opposition of the medical profession centered largely on the failure of voluntary health insurance abroad and, as a result, the adoption there of compulsory health insurance.

The 1940's saw a change in this point of view among a growing number of physicians. This was reflected in the rapidly increasing number of voluntary, nonprofit, medical prepayment plans sponsored by state and county medical societies. In the last years of the decade a federation of these plans, known as the Associated Medical Care Plans, came into being. Nearly every state was represented in AMCP, which later adopted the Blue Shield label.

While the growth of medical prepayment plans sponsored by lay groups was not as spectacular as the Blue Shield and the commercial insurance programs, a number of them had established themselves early and served a considerable number of persons satisfactorily. At one time, these groups and medical organizations were involved in bitter controversy but this is no longer true except in isolated instances.

Late in entering this field were the commercial insurance companies, but they made up for lost time in an aggressive sales campaign. By the early 1950's, health insurance written by these companies outstripped the enrollment in voluntary, nonprofit, prepayment plans, including the Blue Shield.

The total number of persons "insured" in one form or another by voluntary, nonprofit, medical prepayment plans and commercial insurance companies was approximately as follows on January 1, 1955: surgical 82,000,000, medical 43,000,000, making a total of 125,000,000. Despite this impressive showing, even their staunchest supporters recognize that at this stage they do not fully meet the needs and demands of the people.

An appraisal of the Blue Shield and commercial programs discloses the following:

Blue Shield plans are in a stronger position than at any previous time in their brief history. They have, of course, the advantage of being nonprofit; they are underwritten by doctors with their services; and, in most instances, they have accumulated adequate cash reserves. Only an unforeseen catastrophe of considerable proportions could seriously undermine most of these plans financially.

However, there are deficiencies which must be remedied if their permanence is to be assured. Examples are the lack of uniformity in subscribers' benefits. This has proved disadvantageous to the Blue Shield movement for the reason that large companies which have employees in several states are naturally desirous of obtaining uniform benefits for all their employees. An effort has been made in this direction but it has not been entirely satisfactory.

Then, too, some of the plans operate on an indemnity basis; that is, the physician is paid a stipulated amount for a medical procedure, there being no guarantee that it will pay his charges in full. Others operate on a service basis; that is, subscribers under specified income levels are guaranteed specified medical services with the assurance that they will be paid in full. Those exceeding income levels may be required to pay an additional fee for such services to their physicians.

There is also the matter of limited coverage offered by a majority of these plans, which usually provide surgical and obstetrical benefits and ancillary services.

Several are experimenting with medical benefits. Not a few are now making available at increased premiums medical care in catastrophic illnesses. Given time, benefits in these categories will be materially expanded.

Commercial companies gain their strength from broader coverage and uniformity of benefits. However, they only reimburse policyholders or pay physicians a specified amount for each medical procedure. As previously stated, they offer companies employing persons in several states uniform coverage, which is not obtainable through Blue Shield plans.

The weakness of commercial health insurance lies in the fact that there is no assurance that the physician's bills will be fully paid under such an arrangement, although many physicians do accept payments in full settlement for their charges.

The American Medical Association's position with respect to health insurance remains unaltered. It has consistently opposed the adoption of a compulsory system and will undoubtedly continue to do so. However, it is far more sympathetic toward a medical prepayment movement than it was in former days. The Association takes a more or less neutral position regarding voluntary, nonprofit, prepayment plans as against commercial health insurance. At present, it is showing a very friendly interest in Blue Shield Plans.

What then of the future?

It is certain that benefits available through voluntary, nonprofit plans will be far more comprehensive than at the present. The same will undoubtedly be true of health insurance written by commercial insurance companies. One can confidently predict that a far greater proportion of the population will also be protected. Provisions will also be made for insurance coverage of the indigent and low-income group. Some believe this can only be done on a prepayment basis with the aid of Government subsidy, i.e., Federal, state or local.

Who will dominate prepaid medical care in the future?

One would think that voluntary, nonprofit plans would have the inside track; but one cannot rule out commercial companies, which in self-defense may write health insurance on a cost basis; nor can one rule out the Federal and state governments. If Government does not intervene—and physicians generally hope that this will be the case, at least where persons of average income are concerned—subscribers will benefit from the competition which will certainly ensue. If this occurs, the Blue Shield under wise direction should be out in front.

What will happen to physicians?

This will depend to a large extent upon the leadership in the Blue Shield movement. If these plans survive in basically their present form, there need be no concern. They are, for the most part, now receiving splendid support from the communities they serve. On the governing boards of most of them are outstanding community lay leaders.

Should commercial companies dominate the field, it could be quite another matter. One can foresee possible restrictions on professional services and tight regulations as regards the compensation of physicians. Whether domination by commercial companies would be more desirable than by a government agency is debatable. It is hoped that the choice between these alternatives will not have to be made.

It appears that changes are more imminent than is generally realized. A straw in the wind is legislation which provides fringe benefits to Government employees including health insurance partially underwritten by the Federal Government. This legislation is before Congress at the present time and some action will undoubtedly be taken on it before summer.

Officers of Washington's Blue Shield Plan, Medical Service of the District of Columbia, recognizing the urgency of the situation, have been at work for some months on plans to liberalize subscribers' benefits. Needless to say, it is vitally important that these be not only acceptable to doctors but to subscribers as well.

These are crucial days for the Service, as for all Blue Shield plans. A realistic approach to imminent changes in the pattern of prepaid medical care, a sympathetic understanding of the difficulties of meeting them, and an evidence of confidence in leaders on the part of both the public and the profession will do much to strengthen Blue Shield's position in the prepayment field and make it possible for its plans "to deliver the goods."

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Impartial Medical Testimony

As stated in this month's President's message, there have been few business meetings in the Society's history which have attracted more members than the one held on March 2. More than 300 members responded to the "subpoena" requesting their presence.

The subject under discussion was the large number of malpractice actions brought against Washington physicians. Dr. Alfred A. J. Den, Chairman of the Society's Committee on Professional Liability Insurance, read a straightforward and hard-hitting statement in which he disclosed the seriousness of the situation and some of the measures which, in the opinion of his Committee, should be taken. These were incorporated in a report submitted to the Executive Board, which recommended their adoption. Members of the Society present approved all of them by a unanimous vote.

Among the proposals adopted was the following:

"That the Committee on Professional Liability Insurance in conjunction with the Committee on Coöperation with the District of Columbia Bar Association investigate the feasibility of a plan for neutral witnesses similar to that adopted by the Medical and Chirurgical Faculty of the State of Maryland."

A day or two following the business meeting, Dr. Den and Dr. William T. Gibb, Chairman of the Committee on Coöperation with the District Bar Association, met with the Secretary of the Society to discuss immediate steps which should be taken to carry out the purposes of this recommendation. It was agreed that the situation should be explored with representatives of the legal profession, who had recently shown considerable interest in the so-called Baltimore Plan, for the purpose of determining methods of procedure. Subsequently, it was decided conferences would be scheduled in which all interested parties would be invited to participate.

As it seems certain that this will become a lively topic of discussion among Washington physicians in the next few months, your Observer felt that a description of the Plan would be helpful to those who read this column.

The following account of the manner in which the Plan is organized and functions is based on a statement by Chief Judge Emory H. Niles of the Supreme Bench of Baltimore City, which appeared in *The Daily Record*, Baltimore, for January 11, 1955:

"The Committee on Medicolegal Problems, composed of lawyers representing the Bar Association of Baltimore City, the Maryland State Bar Association, and doctors appointed by the Medical and Chirurgical Faculty of Maryland, have completed a plan for furnishing expert medical witnesses to judges of the Court who may desire to appoint them in appropriate cases. . . .

"The principal object of the Committee is to make available to the courts impartial experts to examine patients involved in litigation, to report their findings to the Court and to the parties, and to testify in Court. Such witnesses will be neutral in the sense that they are not advocates for either side, but impartial expert observers, giving all parties the benefit of their special knowledge, and with the backing of the medical profession as to their qualifications. . . . There are three subcommittees, each of which is composed of an equal number of doctors and lawyers, and each of which, from its membership, has chosen its subcommittee chairman."

There are subcommittees on Symposia Management, Court Procedures and Interprofessional Relations.

* * *

"Authority for the appointment of a neutral medical witness is given to trial judges by Discovery Rule 5-1 of the General Rules of Practice and Procedure, which provides that:

" 'Whenever the mental or physical condition of a party is material to any matter involved in any proceeding, the court may, upon motion by any party and notice to all other parties, for good cause shown, order such party to submit to a mental or physical examination by a physician or physicians. The order (1) shall specify the time, place, manner, conditions and scope of the examination and the person or persons by whom it is to be made and (2) may regulate the filing of a report of findings and conclusions and the testimony at the trial by the examining physician or physicians, the payment of the expenses of the examination and any other relevant matters.'

"Although the court may not have power in the absence of an application by one of the parties to appoint an expert witness, in most cases where there is wide disagreement between the parties as to the extent of a medical disability, it will probably be found that one of the parties is anxious to have a neutral expert of high standing appointed, and is willing both to make application for such appointment, and to guarantee the payment of the expert's fees. Whether or not to grant the application is in the discretion of the trial judge. The power of the judge to select an expert of his own choice and without the agreement of counsel as to his identity is confirmed by a number of decisions in jurisdictions in which a similar rule is in force."

* * *

Doctors who volunteer to testify for the court as expert medical witnesses will be permitted, if called upon, to charge their usual rates for this service. It is recommended that when either party to a litigation requests the appointment of a neutral expert, the court obtain from the party applying for the expert's services a guarantee of the payment of his fees. These may be, if agreed to by both parties, added to the cost of the case or divided in a specified manner or left to the discretion of the court. Fees will be paid by the Clerk of the Court so as to conceal the name or names of those by whom the physician is paid.

* * *

". . . Appointment of a neutral expert can be made at any stage of the proceedings prior to the submission of the case to the jury. Under ideal circumstances the appointment should be made as early as possible, so that ample opportunity for settlement negotiations will be had in the light of the neutral expert's findings. . . . "

Appointment of neutral experts will, under the arrangement, in no way limit the number of experts who may be employed by either side in the usual manner.

"When the expert is appointed by the Court, it is important that this fact shall be made known to the jury, and that, although the neutral expert may be cross-examined to any extent regarding his findings and the basis therefore, he will be protected by the judge from attack on the ground of partisanship or incompetence. Inquiry within the medical profession indicates that the leaders of that profession do not object to cross-examination with respect to their findings when based upon completeness, accuracy of observation, certainty or skill. They do, however, sharply resent the imputation often made in cross-examination by adverse counsel that they are dishonest. Thus many of the highest grade physicians refuse to testify in court at all. Many of them have also indicated that if protected against attack on their integrity, they would feel it a public duty to assist the court, both in preliminary examination of patients and by testimony in court subject to cross-examination."

* * *

"The Medical and Chirurgical Faculty has appointed three doctors for each of the specialties listed below. It recommends them as 'consultants to serve as impartial witnesses when called upon to do so by a presiding judge.' "

The specialties referred to above are: allergy, anesthetics, blood, cancer, cardiology, chest diseases, dermatology, internal medicine, neural surgery, neuropsychiatry, ophthalmology, orthopedic surgery, otolaryngology, pathology, pediatrics, psychiatry, radiology and surgery.

The Faculty has requested that the names of the experts submitted by them not be published generally, although it is emphasized that their names are not secret. It is also suggested that the court, having obtained the names of doctors on the panel in a particular specialty, submit them to opposing counsel before making its selection, so if there is any particular objection to these doctors by the counsel for either parties, alternate appointments can be made.

If the Baltimore Plan with modifications is adopted in the District of Columbia, the "battle of the experts" may become a thing of the past. To many this will be a long step forward in the interests of all concerned.

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Doctors' Symphony Orchestra

As those who attended the Annual Dinner of the District and Virginia State Medical Societies during the First Interstate Scientific Assembly last October will recall, one of the pleasant surprises was the initial appearance of the Doctors' Orchestra. Organized only a few months before the Assembly, the orchestra gave a surprisingly smooth performance. Obviously, the audience liked what it heard for every number was enthusiastically applauded.

The orchestra's reception was so encouraging to the performers that they were reluctant to disband. Upon their urging, Dr. Isadore Alpher, under whose direction the orchestra performed, proposed to the Society's Executive Board that it endorse the establishment of a permanent orchestra devoted to serious music and to be known as the Doctors' Symphony Orchestra. The Board unanimously approved the proposal.

Immediately thereafter, the Temporary Committee on Organization was formed, headed by Dr. Richard H. Todd. Members of his Committee are: Drs. Isadore Alpher, Samuel Dessoff, Maurice H. Friedman, Robert H. Harmon, Isidore Lattman, Thomas M. Leonard and Mr. Theodore Wiprud.

The Committee agreed that their immediate objectives should be:

1. To organize a Doctors' Symphony Orchestra which would devote itself to the study and performance of classical music
2. To invite Medical Society members and their wives with sufficient musical training in orchestral instruments to participate
3. To include in the personnel of the orchestra qualified musicians who are members of county medical societies in the Washington Metropolitan Area and physicians stationed in the area with the Federal Government
4. To invite participation of qualified musician members of the District of Columbia Dental Society and the District of Columbia Pharmaceutical Association
5. To discuss unofficially with available conductors what arrangements might be made for their services
6. To lay plans for an organization meeting to which all who respond to the canvass would be invited. This meeting, depending upon the promptness of the response of those canvassed, will be scheduled in the near future.

A communication incorporating the above objectives has been sent to all members of the Society. Enclosed was a form on which to indicate the member's desire to participate, the instrument or instruments on which the member or his wife performs, and whether or not he or she or both has had orchestra experience.

The response by mid-March was very encouraging—30 members expressing a desire to participate. With very few exceptions, they have had considerable musical training and at least some experience in performing with an orchestra. Returns are still being received and it is believed that at least 40 instrumentalists will respond from the Society's membership.

In the meantime, invitations have been extended to county medical societies in nearby Maryland and Virginia to join with the Society in this project. The District of Columbia Dental Society and the District of Columbia Pharmaceutical Association have also been invited to coöperate. Returns had not been received from any of these organizations when this was written because insufficient time had elapsed since communications were sent them.

Several years ago your Observer helped organize a doctors' symphony orchestra and he can testify to its beneficial influence not only on participants but on the medical organization as a whole. Physicians never seem to tire of this strenuous avocation, for long rehearsals of serious music are just that. In fact, like all lovers of good music, they find pleasure and relaxation in perfecting their musical skills. Friendships also flourish in a congenial environment, which does much to unify a considerable body of the local medical profession.

In the course of the discussion at the first meeting of the Temporary Committee, it was emphasized that nothing stimulates members of an amateur musical organization to greater effort than the anticipation of a public appearance. In these circumstances, it was reasonable to assume that when rehearsals have begun, the Doctors' Symphony Orchestra will make its debut in only a matter of months. That is a prospect many members will anticipate with keen interest and with confident expectation that it will be an unusually enjoyable occasion.

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Banquet Problems

There are no more inveterate banquet-attenders than Washingtonians. In common with other citizens, physicians have become inured to the rigors of this extracurricular activity.

Long since, they have ceased to complain about long-winded speeches, ditto toastmaster, dry-as-dust subjects, et cetera. They divorce themselves from the proceedings by taking catnaps, whispered conversations with their table companions, or indulging in speculation about individuals at the head table.

Not all doctors, however, are so philosophical. Last year, for example, when plans for the FIRST INTERSTATE SCIENTIFIC ASSEMBLY were in progress, an influential member of the Committee on Arrangements stated emphatically that, in his opinion, there should be no speeches at the Annual Dinner. Physicians and their wives, he said, had been bored to tears on too many occasions and it was time for a change. This view was shared by several others and, as a result, the traditional speeches were barred for that year at least. Substituted was an hour-long musical review which in every respect was a success. In fact, it was so successful that somewhat similar entertainment is contemplated this year.

In reflecting upon this development, it occurred to your Observer that it might be worthwhile to explore some of the characteristics of the traditional banquet in the hope that it may prove helpful to those who are charged with the responsibility of planning the program. For it is doubtful that many medical organizations will follow the Society's lead and it is also probable that the Society will return again at some future time to the typical program.

The suggestions which follow are not original but their validity has been proven time and again:

A banquet program should not exceed one hour and a quarter. It should proceed at a moderately rapid pace so as to avoid dull spots. Cocktails and dinner, which usually precede it, consumes about one hour and a quarter. Under ordinary circumstances then, the over-all affair should not last beyond two hours and a half. After that time, the proceedings often become painfully boring.

Much of the success of the program depends upon the toastmaster. It is up to him to keep things going. He does not need to be a wit or a humorist to do a good job. In fact, most toastmasters do very well if they remember two things: prepare carefully and be brief. Programs sometimes bog down and exhaust those present because the toastmaster has not done his homework and therefore rambles on and on.

The selection of a principal speaker may spell the difference between success and failure. Obviously, he should be an authority on his subject and at least passably effective in presenting it. Most banquet audiences want to be entertained and this should also be taken into consideration in his selection. This is especially important where both husbands and wives are in attendance. To be avoided are speakers without terminal facilities. In any event, the Committee should be specific as to the time allotted a speaker. Sometimes a hint at the last moment helps.

As for name speakers, it is well known that they attract people who might not otherwise attend. It is equally true that they are sometimes disappointing. Better to have an unknown who is a pleasant surprise than a name speaker who fails to live up to expectations. Committees have to work harder to "put over" the banquet without a well-known speaker but they will reap a satisfying reward if the comments on their choice are generally favorable.

Musical interludes are always welcome at banquets. Such diversion should present no problem for a committee on arrangements.

In summary, then, a pleasantly remembered banquet program is one which is brought to a close before those in attendance become weary; the toastmaster and speakers do not take too much time and know what they are about; and the audience's tastes and interests are taken into account in planning the program. Banquets need not be dull if those responsible will observe these common-sense suggestions.

"...the Real Culprit..."

Soft living is "the real culprit" in heart attacks, not "hard work, overexercise and the tempo of modern living," Dr. Theodore G. Klumpp warns in an article appearing in the December, 1954, issue of the *West Virginia Medical Journal.*

"It is about time someone said an unkind word about the great American neurosis that has swept across the country like an ancient plague," Dr. Klumpp writes. "This neurosis is born of the false notion that hard work is killing us and causing heart attacks. Have we forgotten that today's work schedule, except for doctors, is 8 hours or less a day and a 35- or 40-hour week is the rule, whereas it used to be a 6-day week and nothing less than 48 hours? Businessmen have this neurosis in particularly violent form despite the fact that they have never had it so good. As someone said, 'We've never had it so good nor had it taken away from us so fast.' Hardly an issue of a business magazine fails to remind the poor, tired businessman that the tempo of his life is killing him. They feel so sorry for themselves that instead of saying 'goodby,' they now say 'take it easy.' All this is in some respects a fine thing and it applies to doctors as well as businessmen. It makes our wives feel sorry for us, and it makes us take more time off and longer vacations. So far, so good, but it also worries the hell out of most of us so that we work with mental brakes set against our work and in mortal terror of a heart attack. We are afraid to live for fear of dying.

"Let's do away with this nonsense and take our vacations and time off because we like vacations and time off—not because we're afraid we'll drop dead if we don't."

This attitude is not surprising, Dr. Klumpp declares. "On all sides we are bombarded with the advice, 'Take it easy. Don't work so hard. Slow down. Do you want to kill yourself? Remember you're not as young as you used to be.' The typical picture of a man about to get a heart attack is a slightly distraught red-faced business executive sitting at his desk with two phones jangling at the same time. Such men do get heart attacks but I believe not for the reasons assigned."

Examples to prove the fallacy of these beliefs, Dr. Klumpp continues, are public figures, comparatively few of whom die from heart disease because of strenuous lives they lead.

". . . If hard work, pressure, strain and wear and tear were the factors resulting in a heart attack then neither Presidential candidate in our last election could have survived the campaign. If ever two individuals were subjected to the uttermost limits of human endurance over a prolonged period it was President Eisenhower and Adlai Stevenson. For that matter, if intense living is an important factor then almost every President and most Congressmen should drop dead in office. . . ."

Dr. Klumpp

"Actually not a single President has ever had a fatal heart attack in office.

"If there is any one job through the years in which a man can't escape the kind of pressure which is supposed to produce heart attacks it is the office of President of the United States. And yet the incumbents of this office before Eisenhower lived to an average age of 69 years. If we take out the three that were assassinated their average age at death was 70½ years. If we will go one step farther and eliminate as fairly as we can those who died from infections, cancer and conditions other than diseases of the heart and blood vessels we find that the remainder lived to an average age of 73 years. This certainly doesn't suggest that intense strain has been so bad for our Presidents.

"What about the greatest human dynamo of them all, Sir Winston Churchill? If the popular notion of wear and tear were sound he should have had a heart attack before you and I were born. . . ."

All causes of heart disease are of small and minor significance, Dr. Klumpp states, as compared to arteriosclerosis, which he describes as "the most serious and destructive condition known to man."

"If we succeed in conquering arteriosclerosis then the amazing life of Christen Jacobsen Dragenberg may be merely a forerunner of what is in store for future generations.

"Who was Christen Jacobsen Dragenberg? He was a Dane who lived to be 146 years of age, from 1626 to 1772. A well authenticated account of his life has been preserved and published. He went to sea when he was 13 and fought in the merchant navies of several nations. At 70 was taken prisoner by Algerian pirates and sold into slavery. After 15 years of slavery, escaped at 85 and went to war again against Sweden. He didn't like Swedes. At 111 he married a woman of 60, outlived her and proposed at 130 to several women but was rejected. Mastering his disappointment he lived on for sixteen years. Described as being of impetuous temperament he lived a life far from blameless but in his last five years from 141 to 146 he exhibited a conduct described as 'quite respectable.' "

On the basis of his observations, Dr. Klumpp has this advice to offer adults of more mature years: "I don't think that there is any doubt that the amount of exercise one should take to remain healthy is related to the degree of physical activity an individual has been accustomed to. Nothing that anyone has ever discovered has repealed the laws of common sense. But, I believe we must do everything we can as we grow older to resist the inclination to slow down the tempo of our living."

T. W.

THE WASHINGTON CLINIC AND MITCHELL FOUNDATION

The Washington Clinic and the James F. Mitchell Foundation for Medical Education and Research, located at Wisconsin and Western Avenues, N.W., was officially opened on February 22, 1955 at a dedicatory luncheon attended by 400 invited guests at the Chevy Chase Club. Among the speakers were prominent physicians and laymen who paid tribute to the founders of the Clinic and their contribution to the health of the community.

The principal speaker was Dr. Charles W. Mayo of the Mayo Clinic, Rochester, Minnesota, a close friend of several members of the medical staff. Others who spoke included Senator Lister Hill of Alabama, co-author of the Hill-Burton Act, who was present at the ground-breaking of the new Clinic building more than a year ago; Dr. Preston A. McLendon, President of the Medical Society of the District of Columbia; Dr. Frank E. Wilson, Director of the Washington Office of the American Medical Association, substituting for Dr. Walter B. Martin, President of the American Medical Association, who found it impossible to make the scheduled appearance; Daniel W. Bell, President, The American Security and Trust Company, and Chairman of the Board, Clinic Properties Association, Inc.; Dr. G. Valter Brindley, Sr., Regent of the American College of Surgeons and President of the American Cancer Society. The invocation and benediction were given by the Reverend Charles Duell Kean of The Church of the Epiphany, Washington, D. C.

Seven years went into the planning and organization of the Clinic and Foundation. Construction of the building was begun in 1954. Designed by Almiral and Coughlin, Architects, it has three stories and a full basement with offices for 26 physicians. Provision has been made to accommodate a staff up to 50.

Sharing the building with the Washington Clinic is the James F. Mitchell Foundation for Medical Education and Research, under which research activities will be carried out. The Foundation is established in honor of Dr. James F. Mitchell, one of the country's outstanding surgeons, and until a few years ago Chief of Staff of Emergency Hospital. Dr. Mitchell, who retired from private practice in 1947, was among those present at the dedication ceremonies.

There are 18 doctors at present on the Clinic staff in the specialties listed: Surgery: Paul C. Kiernan, Henry H. Balch; Internal Medicine: Joseph A. Bailey, Morton C. Creditor, Karl Dortzbach, Peyton R. Evans, Jr., Michel M. Healy, William L. Howell, John Minor, James E. Nolan, Robert G. Taylor; Obstetrics and Gynecology: Allan E. King, Daniel E. Mack; Pediatrics: Samuel S. Morrison, William Weidman; Ophthalmology: Harry C. King; Ear, Nose and Throat: Harry W. McCurdy; X-ray: William S. Cole.

The James F. Mitchell Foundation is administered by a Board of Trustees. They are: The Honorable Joseph E. Davies, Henry F. Spencer, Sr., Senator Lister Hill, the Honorable Arthur Gardner, J. Barrett Carter, Frederic J. Ball, Dr. Joseph A. Bailey, and Dr. Paul C. Kiernan.

The building housing the Clinic is the property of Clinic Properties Association, Inc., which rents the property to the Clinic. Dr. Paul C. Kiernan is

(*Continued on page 218*)

INTERIM REPORT OF THE EXECUTIVE BOARD*

This report contains only items which the Constitution and By-laws requires the Executive Board to present at the March meeting and such other business as the Board believes should be included. A complete report of all activities of the Society for the organizational year will be submitted for the consideration of the Society at the Annual Business Meeting to be held on May 4, 1955.

Election of Major General Dan C. Ogle to Honorary Membership: General Ogle was proposed for Honorary membership at the Business Meeting of the Society on November 10, 1954, and approved by the Board of Censors on December 14, 1954. As you know, General Ogle succeeded Major General Harry G. Armstrong as Surgeon General of the United States Air Force on July 14, 1954.

General Ogle is a graduate of the University of Illinois College of Medicine and the School of Aviation Medicine at Brooks Field, Texas. He is also a graduate of the Medical Field Service School at Carlisle Barracks, Pa., and the Air War College.

In 1943 General Ogle was named post surgeon of the Technical Training Center, and the following year assumed command of the Army Air Force Regional Station Hospital, Coral Gables, Florida. In 1944 he went overseas as staff surgeon of the 15th Air Force in Italy, and in 1949 became Deputy Surgeon General of the Air Force. He later transferred from the Army to the Air Force and in March 1953 was named Surgeon for the United States Air Forces in Europe.

The Board is pleased to recommend General Ogle for election to Honorary membership.

Rear Admiral Bartholomew W. Hogan Proposed for Honorary Membership: Admiral Hogan was recently appointed Surgeon General of the Navy, to succeed Rear Admiral Lamont Pugh.

Admiral Hogan received his medical degree from Tufts College Medical School and was awarded the Phi Lambda Kappa Medal for highest achievement. He was appointed a Lieutenant (j.g.) in the Medical Corps of the United States Navy in 1925 and advanced through grades to the rank of Rear Admiral, approved by the President on August 9, 1952.

Prior to World War II he served aboard the *U. S. S. Relief*. In March 1942 he was assigned to the *U. S. S. Wasp* and was aboard that carrier when she was torpedoed in the South Pacific. For heroic service during this action he was awarded the Silver Star and later the Navy and Marine Corps Medal while on board the destroyer *U. S. S. Duncan*. After the War he served as senior medical officer on the *U. S. S. Tranquility*.

Admiral Hogan has commanded the U. S. Naval Hospital, Mare Island, California, the Naval Medical School and the U. S. Naval Hospital at Bethesda. From July 1953 to April 1954 he served as Fleet Medical Officer and Chief of Staff for Medical Matters to the Commander in Chief, U. S. Pacific Fleet. Since April he has been Deputy and Assistant Chief, Bureau of Medicine and Surgery, Navy Department.

As required by the Constitution and By-laws, this proposal will be referred to the Board of Censors for approval and then submitted to the Society.

Nomination of Vice President of Washington Academy of Sciences: Dr. Frederick O. Coe has represented the Society as Vice President of the Washington Academy of Sciences for many years. The Board is pleased to nominate him to succeed himself in that office for another year.

Nomination of Member of the Board of Trustees of Medical Service of the District of Columbia: Dr. James A. Dusbabek's term as a member of the Board of Trustees of Medical Service expires at the time of the annual meeting of the Service in April.

Your Board is pleased to nominate Dr. Dusbabek to succeed himself for a three-year term.

Appointment of Members to the Corporation of Hospital Service Agency to Represent the Medical Society: As in previous years, the Society has been requested to select physicians to represent the Society as corporate members of Hospital Service Agency. Since the reorganization of HSA the Society's representatives have been reduced to 6. However, there will be 12 more physicians representing other medical groups in the area. The following members were recommended by the President and appointed by the Executive Board at its meeting on January 24, 1955, subject to your approval: Drs. William Ross Morris, Henry C. Macatee, Margaret M. Nicholson, C. Willard

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* Adopted at a special Business Meeting of the Medical Society of the District of Columbia, March 2, 1955.

Camalier, Jr., William H. Beard, and Frank S. Pellegrini.

Annual Financial Report for 1954: [Space limitations will not permit the publication of the Report and the Budget. Members who are interested and could not attend the Business Meeting at which they were presented can obtain copies by calling the Society's office.]

Summary of Membership for 1954: The membership report . . . shows that the Society's growth continues despite resignations, transfers, and changes of status which are continually taking place.

It will be observed that at the close of 1954 there were 1,942 members in all categories as compared with 1,910 on January 1, 1954. The greatest increase has been in Associate members. In fact, there has been an increase in all categories except Active, which shows a slight loss. This is indicative of the fact that in recent years there has been a migration of doctors to the suburbs in nearby Virginia and Maryland. When the saturation point has been reached in this area this trend will undoubtedly be reversed and the Society's membership be stabilized.

It is now certain that the total membership of the Society will pass the 2,000 mark before this month has passed. This is nearly double the total number of members ten years ago.

Election of the Nominating Committee: The following were elected members of the Nominating Committee in accordance with the rules adopted by the Society: Dr. William M. Ballinger, *Chairman*; Drs. Hill Carter, Henry D. Ecker, Ernest A. Gould, Zigmond M. Lebensohn, Thomas M. Peery, and Maurice A. Selinger.

As Dr. Gould was out of the city and could not serve, his place was taken by Dr. Paul J. O'Donnell, who was eighth on the list of those who received the largest number of votes.

Dr. Ballinger, the Chairman of the Committee, will present nominees for offices in the Society for the coming year following this report.

Proposed Amendment XXV Providing for Change of Committee Designation: At its meeting on October 1, 1954, the Committee on Industrial Medicine voted to recommend to the Society that the name be changed from Committee on Industrial Medicine to Committee on Industrial Health. It was the consensus of the Committee that in view of the limited industrial activity in the District of Columbia the recommended name of the Committee would be more appropriate. The Amendment reads as follows:

AMENDMENT XXV

Article I and Article VII of Chapter VIII of the Constitution and By-laws are hereby amended by changing the name of the *Committee on Industrial Medicine* to the *Committee on Industrial Health.*

In accordance with the requirements of the Constitution and By-laws this Amendment was read at the Society meeting on November 10, 1954 and is now presented for a vote of the membership.

Proposed Amendment XXVI Providing for Change of Sub-Committee to Full Committee Status: It has been called to the attention of the Board that two years ago the American Medical Association established a Committee on Mental Health (now a Council on Mental Health) and suggested that all state societies do likewise. The District of Columbia is one of the few states which does not have a standing Committee on Mental Health. On the recommendation of the President, the Executive Board at its meeting on November 22, 1954, voted to recommend that the Society's Constitution and By-laws be amended so as to give the present Subcommittee on Mental Health full committee status. The Amendment reads as follows:

AMENDMENT XXVI

Section 1. Article I of Chapter VIII of the Constitution and By-laws is hereby amended by adding thereto the following: 11. Committee on Mental Health.

Section 2. Chapter VIII of the Constitution and By-laws is further amended by adding thereto the following: Article XIII. The Committee on Mental Health shall initiate and carry on such studies and activities relating to mental health as the Committee or the Society may suggest or direct.

This Amendment will be voted on at the next Business Meeting.

Health Fair: At its meeting on January 24, 1955, the Executive Board approved in principle what has been designated elsewhere as a Health Fair. The Fair—sometimes called the Hall of Health—would be similar to the Health Exhibit sponsored by the Society in connection with the ANNUAL SCIENTIFIC ASSEMBLY but on a more ambitious scale. In such cities as Philadelphia, Milwaukee, Miami, and

Wichita, Kansas, these exhibits have been sponsored by medical societies, official and voluntary health agencies, and civic groups.

The Board was particularly impressed by the report it received on the Health Fair held in Miami during the AMA meeting last December. Thousands of citizens viewed the exhibits which filled the Municipal Auditorium. The press had high praise for the educational value of the project.

It is proposed that the Society undertake this project in coöperation with the Washington Board of Trade. Coöperation of the District Health Department has been assured.

Your Board will report further on this project at a later meeting.

Conclusion: This year the ANNUAL SCIENTIFIC ASSEMBLY will celebrate its Silver Anniversary at the Hotel Statler on October 10, 11, and 12. Several innovations are being considered for this meeting. These will be announced in the very near future. In the meantime, you are urged to note the dates on your calendar.

The Annual Business Meeting will be held on May 4, 1955. As previously stated, the Board will then report on its activities during the year.

Respectfully submitted,
WALLACE M. YATER, M.D., *Chairman*
KARL C. CORLEY, M.D.
HUGH H. HUSSEY, M.D.
PRESTON A. MCLENDON, M.D.
WILLIAM ROSS MORRIS, M.D.
HERBERT P. RAMSEY, M.D.
R. LOMAX WELLS, M.D.
THEODORE WIPRUD, *Secretary*

SUPPLEMENTARY REPORT OF THE EXECUTIVE BOARD*

As you have been informed by the Executive Board on a number of occasions in the past few years, the malpractice situation in the District of Columbia has been far from satisfactory. Various methods have been adopted by the Committee on Professional Liability Insurance which have so far not produced the hoped-for results.

The Board believes you will agree that the excellent presentation by Dr. Alfred A. J. Den,† present Chairman of the Committee, points up the seriousness of the present situation. As must be obvious, facts contained in his report were obtained only after much effort. The Board feels certain it speaks for you when it commends him highly for his thorough study of the malpractice situation in the District.

At the close of Dr. Den's statement he refers to the report and recommendations of his Committee. These were considered by the Board at its meeting on last Monday evening. The recommendations, with one exception, relate to the functioning of the Committee. These recommendations follow, together with the Board's action with respect to them.

A. *That in the future the entire Committee be notified when malpractice actions are to be reviewed and that no meeting be held unless a quorum is present.* (Approved)

Heretofore, in reviewing malpractice claims submitted to it by insurance companies, the Committee has acted through two subcommittees, which have reviewed the facts in the cases presented and come to a decision as to whether or not the facts justify the Society's support of the physician in the malpractice action under consideration. It is now proposed that the whole Committee be notified to be present and that malpractice suits be reviewed only when there is a quorum or a majority present. The Board agreed that this rule should be adopted.

B. *That a definite procedure be established and a written record kept of proceedings.* (Approval withheld pending consultation with legal counsel. Definite recommendations will be made at the Annual Business Meeting, May 2, 1955.)

C. *That authority be granted to the Committee to make arrangements with all insurance companies writing physicians' liability insurance in the District of Columbia to submit to the Committee for review all cases of malpractice action.* (Approved)

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* For publication this report has been shortened by deleting some of the explanatory material. The full report was adopted by the Medical Society of the District of Columbia at its special Business Meeting, March 2, 1955.

† See page 205 of this issue of the MEDICAL ANNALS for Dr. Den's story of the malpractice situation in the District of Columbia.

Photo by Leslie French, M.D.

PANELISTS AT MEETING OF AMERICAN COLLEGE OF PHYSICIANS

Panel members above were photographed while engrossed in a discussion of the Newer Aspects of Anemia during the Sixth Annual Regional Meeting of the American College of Physicians for Maryland and the District of Columbia in the District Medical Society's building, February 12. In the center is the moderator, Dr. William H. Crosby, Jr., of Walter Reed Army Hospital. Others are (left to right): Dr. Philip Wagley, Johns Hopkins University School of Medicine; Dr. Milton S. Sacks, University of Maryland School of Medicine; Dr. Jack J. Rheingold, George Washington University School of Medicine; and Dr. Charles E. Rath, Georgetown University School of Medicine.

D. *That there be closer liaison with the Grievance Committee and that one of its members or the chairman be an ex officio member of the Grievance Committee.* (Approved)

E. *That the Committee on Professional Liability Insurance in conjunction with the Committee on Coöperation with the D. C. Bar Association investigate the feasibility of a plan for neutral witnesses similar to that adopted by the Medical and Chirurgical Faculty of the state of Maryland.* (Approved)

F. *That the Medical Society withhold endorsement of any insurance company carrying physicians' liability insurance.*

As members will recall, the Group Professional Liability Insurance Policy with the United States Fidelity and Guaranty Company was canceled on May 1, 1953. Thereafter professional liability insurance has been written by the USF&G on an individual basis.

A year ago at a business meeting on March 3, 1954, the Society approved the recommendation of the Committee and the Board that the insurance coverage offered by the USF&G be endorsed for one year beginning May 1, 1954. There was still hope that the USF&G might change its mind with respect to group coverage in the District.

Both the Committee and the Board have now come to the conclusion that there is no reason to continue this endorsement in view of the fact that group policies have been discontinued. In the opinion of the Committee and the Board each member should now seek coverage where he wishes.

In conclusion, your Board feels confident that the present interest and activity of the Committee will result in definite improvement in the local situation in the near future. The previous Committee by much diligence laid a sound foundation on which the current Committee can build for the future.

NOMINATIONS

The Nominating Committee presented the following nominees for elective offices at the business session of the Medical Society of the District of Columbia on March 2, 1955:

For President-elect:
Ralph M. Caulk

For First Vice President:
Milton M. Greenberg

For Second Vice President:
Dorothy D. Dowd

For Member of Executive Board for 4 years:
Preston A. McLendon

For Member of Board of Censors for 3 years:
James A. Dusbabek

For Delegate to American Medical Association for 2 years:
Hugh H. Hussey

For Alternate Delegate to AMA for 2 years:
Victor R. Alfaro

Elections to the above offices will be held at the Annual Business Meeting of the Society, May 4, 1955.

MALPRACTICE—THE HAZARD OF MODERN MEDICAL PRACTICE*

ALFRED A. J. DEN, M.D.

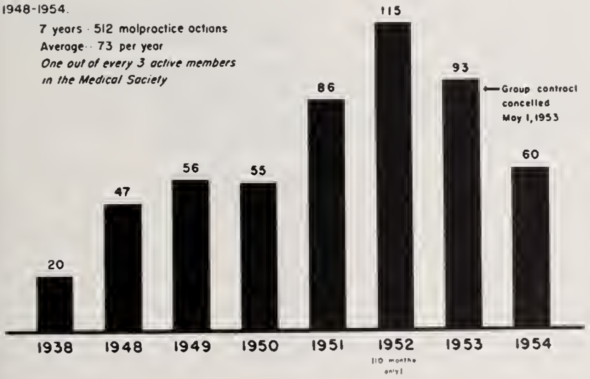
Chairman, Professional Liability Insurance Committee, The Medical Society of the District of Columbia

If this talk is going to be helpful to you, I should like to make three points clear:

1. In the past 7 years, 1 out of every 3 Active members of this society has been involved in a malpractice action (chart 1).
2. Our generation of physicians faces an increased public responsibility in the conduct of their practice.
3. Your Committee has made an honest, impersonal, and comprehensive attempt to diagnose our difficulty, but we do not arrogate to ourselves any quality of omniscience.

CHART 1

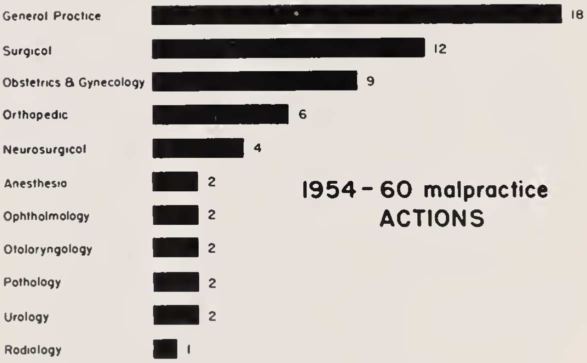
Increase in Malpractice Actions against Active Members of the Medical Society of the District of Columbia



Although the malpractice problem is national in scope, the District of Columbia is third in the number of claims in the United States. The District of Columbia is exceeded only by the state of California and New York City. During the year 1954, 60 malpractice actions were filed against Active members of the Medical Society of the District of Columbia (chart 2). Of these 60 cases, nearly 30 per cent were ignited or suggested by what may be termed "unprofessional conduct" on the part of the physician (chart 3). An additional 30 per cent were due to his failure to act with discretion and discernment (chart 4). The present status of these suits is shown in chart 5. The patient nearly always alleges that the doctor failed to apply properly or exercise that requisite knowledge and skill usually possessed in his area by his colleagues. This is usually inspired by some thoughtless or careless remark by a doctor who too frequently does not know all the facts about the patient's condition or the treatment given. Many times the doctor cannot substantiate his remark when called to the witness stand. Other contributory causes of a professional nature are bad hospital public relations and specialization. Resident and intern staffs of hospitals can stand considerable improvement in their relations to practicing physicians. Too often they make unfortunate remarks about the care of the patient. There are also many extrinsic causes, such as (1) increased public claim-consciousness, (2) court interpretations broadening liability, and (3) legislation increasing hospital liability.

CHART 2

Physician Specialties Involved in 60 Malpractice Actions against Active Members of the Medical Society of D.C.—1954



The increase in malpractice suits is not out of proportion to other forms of personal injury litigation. Since 1950 the basic insurance premium for physicians' liability insurance has increased over 125 per cent.

The second point that should be emphasized concerns the public's regard for us and our regard for the public. Our generation of physicians, and probably those to follow, are dealing with people much better informed about their health than even a decade ago. Physicians of a former day had a warm personal relationship with their patients and the doctor was an esteemed citizen of his community who could do no wrong. This luster is wearing off and we should face the change as realistically as we can.

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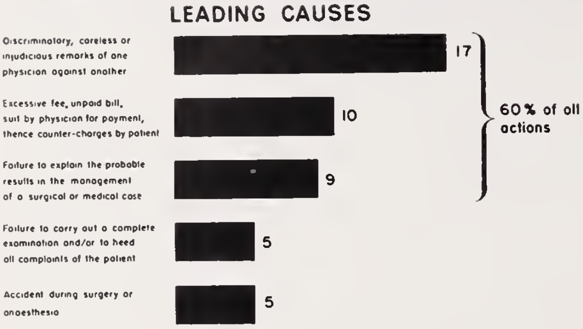
* Presented at the special Business Meeting of the Medical Society of the District of Columbia, March 2, 1955.

CHART 3

Major Causes in 60 Malpractice Actions against Active Members of the Medical Society of D.C.



When people become "suit conscious" they tend to think in terms of legal action for any and all real or fancied grievances. During most of our early lives a guest in our home would have thought it ungentlemanly to sue his host if he injured himself in our home, or if he was hurt in an auto accident while being taken home. Now suits of this type are common.

From many conversations with men in the legal and business fields, and articles appearing in the press, the difference in the patient-doctor relationship can probably be attributed to the increasing "impersonalization of medicine." Members of the legal profession have hurled charges against doctors for their failure to testify against their fellow practitioners in courts of law. Mr. Herbert E. Greenstone, Chairman of the Eastern Regional Convention of the National Association of Claimants' Compensation Attorneys, at Atlantic City on February 12, 1955, stated, "It is quite apparent that there is an organized conspiracy in the medical profession to stifle any attempt to provide justice for the victims of malpractice" and that "medical societies were exerting a restraining influence upon doctors who might otherwise testify in malpractice cases."[1]

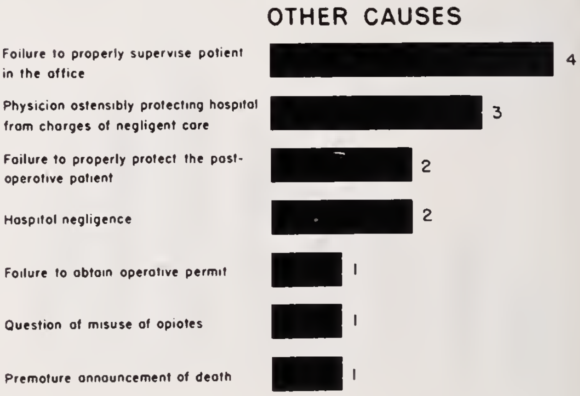
Your Committee has been fully aware of these unfounded charges. In order to show our good faith, our Committee on Coöperation with the District of Columbia Bar Association has tentatively agreed to suggest a method of providing impartial medical witnesses. Our thinking is along the line of the plan adopted in Baltimore. We are contemplating talks with officials of our courts on the possible institution of a similar plan.

Now, what are the remedies and what is a realistic approach toward the current trend? Here are some suggestions which your Committee would like to submit for your serious consideration.

1. Ascertain all the facts before commenting on another physician's case. It has been said frequently that the raising of an eyebrow, the inflection of a voice, or the use of the phrases, "Why wasn't this done?" "Something else should have been done," "Why didn't you see me earlier?" "How in the world could he have missed it?"—all these plant the seed of discontent. These comments may be made without malice, but they are frequently misinterpreted by the patient. Medicine is not an exact science, and there can be a perfectly honest difference of opinion regarding the mode or method of treatment. Your opinion may or may not be correct, but if the other physician has honestly proceeded with the same degree of knowledge and skill, the mere fact that you disagree may be construed by the patient to mean that he was mistreated and should pursue compensation for damages. Remember "Don't build yourself up by knocking the other fellow down."

CHART 4

Minor Causes in 60 Malpractice Actions against Active Members of the Medical Society of D.C.



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[1] *The Washington Post and Times Herald*, February 13, 1955.

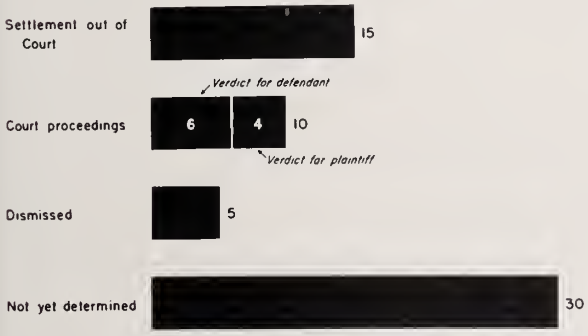
2. Do not guarantee a therapeutic result. Explain the probable and possible results and what may be reasonably expected from the therapy instituted. Be wary of anything that may be construed to imply a guarantee.

3. Keep adequate and detailed medical records. These are vitally important to both parties.

4. Excessive fees must be avoided. We commend to your attention a sign distributed by the AMA for display in your waiting-room which in substance invites a frank discussion of your services and fees.

CHART 5

Outcome of 60 Malpractice Actions—1954



We do not wish to suggest that any physician should permit himself to be frightened or threatened into a lawsuit by a patient who is simply trying to avoid payment of his bill. On the contrary, he should give proper consideration to all circumstances and ask one of his colleagues, whom he respects, for objective advice before instituting legal proceedings for payment.

Never, never write a letter without benefit of legal counsel regarding admission of liability or comment on a potential claim by a dissatisfied patient. At the first sign that there may be a possible claim for malpractice against you, promptly seek legal advice and report to your insurance carrier.

5. Medical schools are not law schools, but they can give the student, by a more concerted effort, a better knowledge of the ethics and law that should govern his conduct after entering practice. His concept of the law is usually picked up on a hit-or-miss basis and from dubious sources.

6. In addition to all of the above difficulties, we have observed with dismay an unusual frequency of a few doctors urging and supporting the claim of a plaintiff in a malpractice action that, when evaluated in the light of neutral objective opinion, was trivial and not medically significant, but which was magnified and served as an excuse for a lawsuit. The remedy for this rests in those of you who have knowledge of the above and the presentation of evidence to the Grievance Committee or our Committee for investigation and action.

It would be a serious error if we refused to face the facts. Changes in the malpractice situation have occurred gradually and subtly. We have failed to realize their extent. And many of them are not to our liking. It is time to pause, take stock, and cope with the problem in these changing times.

Before closing, let me say that our Committee was not able to negotiate a group physicians' liability insurance contract for our Society. While there may be some change in the number of claims, there is a chance that there will be an increase in premium rates after May 1, 1955.

Our Committee has submitted recommendations which it believes will materially improve the malpractice situation, and we hope that these recommendations will be favorably received by you.

Acknowledgement: I am deeply grateful to the following for their kindness, patience and help in the compilation of this report: Mr. Arthur Butler, attorney, Claim Investigator for the United States Fidelity and Guaranty Company; Mr. H. Mason Welch, our esteemed friend and outstanding counselor-at-law in the District of Columbia; Mr. Frank R. Strunk, insurance advisor to our Committee; and Mr. Warren E. Magee, legal counselor for the Medical Society of the District of Columbia.

WOMAN'S AUXILIARY NOTES

The Columbia Country Club was a crowded place Wednesday, March 9, when the Woman's Auxiliary held its Annual Nursing Scholarship Benefit Luncheon and Card Party.

It was a beautiful spring day and the Club took on all the aspects of a Dior Fashion Show as the members and their guests arrived in their new spring finery.

The nursing scholarships are among our major interests and a project we support most heartily. There are five of them at present. We also expect to award a Merit Scholarship to one of the class in

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers' Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
February 20	Dr. Julius Schreiber	Getting Along with Our Neighbors	Unitarian Church, Arlington, Va.
March 1	Dr. Charles M. Weber	Communicable Diseases	Woods Elementary School Parent-Teachers Association
March 7	Dr. Maxwell Boverman	Discussion of film, "The Angry Boy"	Colesville Elementary School Parent-Teachers Association
March 9	Dr. Robert B. Sullivan Dr. John R. Pate	Mental Health Facilities	D. C. Mental Health Association
March 10	Dr. Winfred Overholser	Across the River and Among the Trees	Columbia Historical Society

Prenursing in June. This Prenursing Class for senior high school girls has been a recent innovation, but it has been so successful, we hope to extend it to other high schools and hospitals very soon.

These scholarships are financed entirely by our card parties and other fund-raising benefits, so if you haven't yet donated your dollar to the Nursing Scholarship Fund, please do so at once. You may be the winner of a beautiful 21-inch color television set!

At the business meeting preceding the luncheon, the following officers were elected:

President: Mrs. Lawrence Rapee
President-elect: Mrs. Albert E. Marland
First Vice President: Mrs. W. Ross Morris
Second Vice President: Mrs. David Nolan
Recording Secretary: Mrs. J. Blaine Harrell
Corresponding Secretary: Mrs. Joseph M. Rom
Assistant Corresponding Secretary: Mrs. Harold R. Downey
Treasurer: Mrs. Julius Radice
Assistant Treasurer: Mrs. Brooks Brown

MRS. ALBERT E. MARLAND
Publicity Chairman

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, February 28, 1955, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Stanhope Bayne-Jones, 3227 Reservoir Road, N.W.
Cyril Crocker, Freedmen's Hospital
Gordon W. Daisley, Jr., 1517 30th Street, N.W.
William Arthur Eddy, 552 Southampton Drive, Silver Spring, Md.
Robert D. Gillman, 3000 Connecticut Avenue, N.W.
Harry I. Martin, 2500 USAF Hospital, Mitchell Air Force Base, N. Y.
Harry W. McCurdy, Washington Clinic
Richard A. Rogers, 1712 Rhode Island Avenue, N.W.
Joseph S. Thomas, 1803 4th Street, N.W.

Associate Members

Joseph D. Connor, 9600 Old Georgetown Road, Bethesda, Md.
Arthur Z. Metzger, Box 166, McLean, Va.
Francis J. Troendle, 26 West Montgomery Avenue, Rockville, Md.
Eddie D. Wolfe, B.S.P., 1413 Primrose Road, N.W.

Resident-Intern Members

Roger H. Bergstrom, 1515 Ogden Street, N.W.
Melvin W. Sandmeyer, Jr., 2925 Nelson Place, S.E.

The following applicants for membership will be voted on at the meeting of the Executive Board, May 23, 1955.

For Active Membership

Edward Adelson, Tufts College—1947
Henry H. Balch, Jr., University of Dublin, Ireland—1940
Armon A. Cairo, Georgetown University—1948
Dorothea Beckh Chapman, Leopold Franzens Universität, Innsbruck, Austria—1945
David Goldenberg, Washington University (St. Louis)—1947

(*Continued on page 209*)

On the Lighter Side

How would you like to buy a big new, high-priced luxury automobile this year and have your Uncle Sammy foot the bill? Well, brother, it can be done; the new 1954 tax law says it can.

April 15, 1955 is a history-making day in these United States of America and all its possessions. It is the first time Uncle Sam has given us poor wretches an extra thirty-one days to hold onto our green stuff. Until this year March 15 was the usual day of mourning for the average taxpayer and the usual day of rejoicing for the Bureau of Internal Revenue. Now, however, April 15 is the final day of reckoning for most of us who have put off filing our tax return until the last minute. There is, however, a silver lining to this dark tax cloud, and if you are in a high surtax bracket Uncle Sam has a consolation prize for you as I mentioned in the above paragraph.

Free cars are for rich people only. Those of us who have to labor for our board and keep, who have to spend extra hours in the office in order to pay the mortgage, to keep the kids properly clothed and in school, to make the necessary payments on our insurance policies, to pay our medical dues and assessments, and to cover the open palms of all the outstretched hands must dig down deep to buy our heap.

To get one of those free cars you have to be in a high surtax bracket where every dollar deduction is almost a dollar earned. Let us float up into the realms of Fancy and imagine we are accumulating sixty to one hundred thousand dollars per year. We buy an automobile because we need it in our professional practice of medicine. Now this automobile has to be a fancy, chrome-plated beauty with all the gadgets, because after all one must have prestige to prove one is a success! (This point might be difficult to prove to a 3800-dollar a year Internal Revenue field man.) However, the law is on our side for once; therefore we spend a measly 6000 dollars for a mechanical dream that carries the prestige name. This we classify in our tax return as a professionally deductible item.

Under the new tax laws the cost of this prestige item may be amortized at the rate of 50 per cent the first year. We rub our hands in glee because this is the first time in the history of the B.I.R. that a taxpayer got a real tax break without paying through the nose for it. We are allowed to deduct 3000 dollars on our income tax form after we have creased the car cushions for twelve months. Now we take our one-year-old car, which has been driven 10,000 miles or so and still looks like it is brand new, and we sell it on the open market for 4500 dollars. Since our one-year-old car has been amortized for 3000 dollars, we make 1500 dollars profit on the deal.

This profit money is a capital gain and taxable at 25 per cent; therefore, we pay 375 dollars capital gain tax. We deduct the 375 dollars from the 4500 dollars sale price and we get 3125 dollars. Now add this amount to the 3000-dollar tax saving that resulted from the original 3000-dollar deduction and we get 6125 dollars—money enough to buy our new model prestige automobile and enough left over to purchase the petrol for a trip to Florida. On Uncle Sam, of course.

This, my friend, is how to ride in a free prestige automobile this year with the Government picking up the tab. But don't worry, Sport! Congress will put a stop to that ideal situation on the next tax-go-round on Capitol Hill.

CHUCKLE NOTE: A bebopster, upon viewing the statue of the Venus de Milo for the first time, chortled, "Man, dig that crazy manicure."

BOWLING NOTE: Team standings on March 4 were as follows: Children's, Columbia, Sibley #1, Prince Georges, Garfield, Casualty, George Washington, Washington Hospital Center, Sibley #2, Suburban, Georgetown, Doctors, Emergency #1, Providence, and Emergency #2.

J. EARL KADAN, M.D.

(Continued from page 208)

Daniel E. Mack, New York University—1946
Rudolph H. Miller II, Howard University—1947
George Shepard, Jr., Howard University—1950
Bushnell Smith, University of Rochester—1950

For Associate Membership

Henry T. Grinvalsky, New York University—1946

For Resident-Intern Membership

Henry S. Spencer, Medical College of Virginia—1953

News and Personals

MEETINGS—Past and Future

The last two lectures in the **series on cancer detection and treatment,** sponsored by the Section on General Medicine of the Medical Society of the District of Columbia and the District of Columbia Division of the American Cancer Society, will be held in the Medical Society's building, April 28 and May 5, beginning at 8:30 p.m. Dr. Ralph M. Caulk will speak, April 28, on "Irradiation in the Treatment of Cancer." At the final meeting of the series, Dr. Louis K. Alpert will discuss "Chemotherapy in the Treatment of Cancer."

The first lecture in the series was given by Dr. Emerson Day, Director of the Strang Detection Clinic, Memorial Hospital, New York, February 24, on "Cancer Detection." All the other speakers for the series have been members of the D. C. Medical Society. Following is a list of topics discussed and the names of the speakers:

March 3: "Cancer of the Female Generative Tract," Dr. Andrew A. Marchetti
March 10: "Cancer of the Genitourinary Tract," Dr. William P. Herbst III
March 17: "Thoracic Malignancies," Dr. Edgar W. Davis
March 24: "Cancer of the Breast," Dr. Murray M. Copeland
March 31: "Cancer of the Oral Cavity, Skin and Melanoma," Dr. Calvin T. Klopp
April 14: "Cancer of the Gastrointestinal Tract," Dr. Peter D. Comanduras
April 21: "The Problem of Biopsies," Dr. Theodore Winship

Saint Elizabeths Hospital is observing its **One Hundredth Anniversary** this year and will be the meeting place, May 5 and 6, for psychiatrists and other authorities on mental illness from the United States, South America, and abroad.

The Hospital, one of the largest and best known mental institutions in the world, was opened in 1885; it was founded largely through the efforts of the Boston Samaritan, Dorothea Lynde Dix.

Dr. Winfred Overholser, Superintendent of the Hospital, will preside at the meetings. Dr. Arthur P. Noyes, President of the American Psychiatric Association, will participate in the program. Dr. Gregory Zilboorg, noted medical historian and psychoanalyst, of New York, will address a dinner meeting at the Willard Hotel on May 6. Other speakers will be Dr. Nolan D. C. Lewis, Director of Research at the New Jersey Neuropsychiatric Institute, Skillman, N. J.; Dr. Bernard Glueck, of Washington, authority on forensic psychiatry; and Dr. Zigmond M. Lebensohn, Associate Professor of Psychiatry at Georgetown University School of Medicine.

On Thursday evening, May 5, an historical drama, based on the life of Dorothea Dix, written and produced by patients at Saint Elizabeths, will be presented.

All psychiatrists and members of related professions are invited to attend the meetings at the Hospital.

The regular quarterly luncheon meeting of the **Metropolitan Health Officers' Association** will be held on April 20 at the Washington Golf and Country Club. The subject for discussion will be the administration of infantile paralysis vaccine during the coming months.

A City-Wide Workshop Conference, sponsored by the D. C. Social Hygiene Society and the D. C. Department of Public Health, was held in the auditorium of the U. S. Department of Health, Education and Welfare, March 4. The theme of the conference was "Community Responsibility for Venereal Disease Control." Introductory remarks were made by Dr. Paul B. Cornely, General Chairman, who presided; Dr. Daniel L. Seckinger, Director of Public Health for the District of Columbia; and Dr. Russell J. Fields, President of the Social Hygiene Society.

Panelists for a discussion of Venereal Disease in

Washington and the Nation, 1955, were Dr. C. A. Smith, Chief, VD Program, Division of Special Health Services, U. S. Department of Health, Education and Welfare; Dr. S. Ross Taggart, Acting Chief, Preventive and Chronic Diseases Division, D. C. Department of Public Health; and Mr. Truman J. Keesey, Information Specialist, D. C. Department of Public Health.

Following the panel discussion participants in the conference divided into work groups. Dr. Wendell C. Freeman, Head of the Department of Dermatology and Syphilology, Howard University, headed the work group on "Current Trends in VD Treatment." Consultants for this group were Dr. Monroe J. Romansky, Associate Professor of Medicine, George Washington University, and Dr. Frank Jones, of the Department of Urology, Howard University.

Mr. Charles E. Kellogg of the Soil Conservation Service, U. S. Department of Agriculture, addressed **members of the Medical Society of the District of Columbia** and their wives, who were present as guests, March 23, on the subject, "The Top Six Inches: The Mine of Green Gold."

On March 16 the **George Washington University Medical Society** met in the Medical Society's auditorium for a clinical presentation of "Curable Cardiovascular Diseases" by staff members of the University's School of Medicine and Hospital. The following physicians presented cases, illustrating their talks with patients, and discussed the medical aspects and treatment: Dr. John M. Evans, Associate Clinical Professor of Medicine; Dr. Harold H. Orvis, Resident in Medicine; Dr. Bernard H. Ostrow, Fellow in Cardiology; and Dr. Irene Hsu, Fellow in Cardiology. Dr. Owen Gwathmey, Associate Professor of Surgery, gave a presentation of the surgical aspects and treatment.

The Rheumatism Society met in the Medical Society's auditorium, March 9. Dr. Joseph J. Bunin, Clinical Director, National Institute of Arthritis and Metabolic Diseases, and Associate Professor of Medicine, Johns Hopkins University, was the guest speaker. His topic for discussion was "The Clinical Effects of Metacortandracin on Rheumatoid Arthritis and Lupus Erythematosus."

The Medico-Chirurgical Society of the District of Columbia presented a Symposium on Venereal Disease Control and Sex Education at its regular meeting, March 24. Panelists were: Dr. S. Ross Taggart, Chief, Bureau of Veneral Disease Control, D. C. Health Department; Dr. Russell J. Fields and Mr. Jesse Barnet, President and Executive Secretary, respectively, of the District Social Hygiene Society; Miss Josephine J. Albrecht, Executive Secretary, Health Section, United Community Services; and Dr. John Cutler, Special Assistant, U. S. Public Health Service. Dr. R. Frank Jones, Professor of Urology, Howard University School of Medicine, was moderator.

At the meeting of the **Washington Psychiatric Society,** March 11, Dr. Howard S. Liddell, Professor of Psychology, Cornell Behavior Farm, Ithaca, New York, presented a paper on "The Implications for Psychiatry of Certain Observations on Animal Behavior." Dr. Edith H. Weigert led discussion of the paper following its presentation.

The Jacobi Society of Washington held its Annual Banquet, April 2, in the Presidential Ballroom of the Hotel Statler. Following the dinner, Mr. Philip L. Graham, publisher of the *Washington Post-Times Herald*, spoke informally on his experiences in conducting a newspaper in the Nation's Capital. Presiding at the dinner was Dr. Charles G. Aronstein, President of the Society.

GENERAL NEWS

The regular meeting of the **Executive Board of the Medical Society of the District of Columbia** was held, February 28. At the request of Drs. William H. Cooper and William B. McKelway, Co-chairmen for Community Health Week, the Board endorsed Community Health Week, which was held March 21–27.

Rear Admiral Bartholomew W. Hogan, Surgeon General of the Navy, and Dr. William S. Middleton, Chief Medical Director of Veterans Administration, were recommended for election to Honorary membership in the Society.

Upon being informed that the term of office of Mr. Frank R. Jelleff, a member of the Board of Trustees of Group Hospitalization, Inc., would expire this year, the Board recommended that Mr. Jelleff be appointed to succeed himself as a member of the Board of Trustees of GHI for a 5-year period.

Dr. Daniel L. Seckinger, Director of Public Health for the District of Columbia, announces a new, 13-week **TV series entitled, "To Live Anew,"** which began, Sunday, March 20, at 11:30 p.m. It describes rehabilitation of the handicapped and is presented jointly by WTOP-TV and the D. C. Department of Public Health.

Dr. Josephine J. Buchanan, Chief of Physical Medicine and Rehabilitation, D. C. General Hospital, is medical consultant for the series, and Dr. Donald Nelson, resident physician at D. C. General, is narrator. Mr. Truman J. Keesey, of the D. C. Department of Public Health, has written the scripts and is co-producer of the series with Mr. Ted Zarpas, the latter of WTOP-TV.

The following outline of the programs lists a number of Medical Society participants. Following the live show or film the doctor briefly summarizes the message portrayed.

March 20: Dr. Daniel L. Seckinger—Preview of coming attractions. This opening program included statistical data and explained the reason for the series.
March 27: Dr. Bernard J. Michela, Instructor, Department of Physical Medicine and Rehabilitation, Georgetown University School of Medicine—Total concept of rehabilitation: physical, mental, social and economic.
April 3: Dr. Clifton R. Gruver, internist—Strokes.
April 10: Dr. Elizabeth H. Hill, Chief, Outpatient Department, D.C. General Hospital—Heart attacks.
April 17: Dr. Milton C. Cobey, member, Medical Advisory Committee to D.C. Chapter, National Foundation for Infantile Paralysis—Disability from infectious diseases.
April 24: Dr. Paul Chodoff, Co-director, Washington Multiple Sclerosis Center, George Washington University Hospital—Muscular dystrophy, multiple sclerosis.
May 1: Miss Ruth O'Neill, Vocational Rehabilitation Counselor, D.C. Department of Vocational Rehabilitation—Cerebral palsy.
May 8: Dr. Charles D. Shields, Professor and Director, Department of Physical Medicine and Rehabilitation, Georgetown University School of Medicine—Loss of limb.
May 15: Dr. Arthur B. Wein, orthopedic surgeon—Loss from broken bones.
May 22: Dr. Richard Owens, NIH Fellow in Physical Medicine and Rehabilitation, George Washington University Hospital—Severe trauma.
May 29: Dr. Andrew G. Prandoni, Chief, Vascular Clinic, George Washington University School of Medicine—Insufficiency of circulation and geriatrics.
June 5: Dr. Thomas McPherson Brown, Chief, Department of Medicine, George Washington University Hospital—Arthritis.
June 12: Panel of leaders, employers, labor, etc.—Community action.

Dr. John W. Lawlah has been appointed one of a 10-member Commission by Secretary of Health Hobby to study and consider the future role of **Freedmen's Hospital** (1) as a medical training and research center, (2) as a teaching hospital for Howard University School of Medicine, and (3) as a service to the Washington community. The Commission will also study the kind of organizational relationships and financial support the Hospital's role warrants. The members will serve as individuals and not as representatives of their organizations.

Members of the Study Commission, in addition to Dr. Lawlah, are: Mr. Clyde H. Hendrix, of Woodlawn, Iowa, Chairman; Mr. Benson Ford, Vice President of the Ford Motor Company; Mr. Benjamin M. McKelway, Editor of the *Washington Star*; Mrs. R. Louise McManus, of Teachers College, Columbia University; Dr. Peter Murray, President of New York County Medical Society; Judge Luther Youngdahl, of the U. S. District Court for the District of Columbia; and Mrs. Isabelle J. Jones, Mr. G. Howland Shaw, and Dr. Garnet C. Wilkinson, all of Washington.

Mr. Frederick P. H. Siddons, Vice President of American Security and Trust Company, and President of the **District of Columbia Division, American Cancer Society,** was selected by its Board of Trustees to receive the St. George Medal and a citation for distinguished service in the control of cancer in the District of Columbia; the award was made at the semi-annual meeting of the D. C. Division, March 9, in the new Wall Auditorium at Children's Hospital. Dr. E. Clarence Rice, Director of Laboratories for Children's and Garfield Hospitals, introduced the speakers at the meeting, who were medical staff members of Children's. They were

Dr. Enid F. Gilbert, Director of the Tumor Clinic, and Dr. Grace H. Guin, Associate Director of Laboratories and Chairman of the Tumor Board.

DR. HARMON HONORED FOR AVOCATIONAL ACCOMPLISHMENTS

Dr. Robert H. Harmon (right) holds the Award of Merit certificate which has just been handed him by Dr. Leland E. Stevenson, President of the George Washington University Medical Society. In the center, bestowing congratulations upon Dr. Harmon, is Mrs. Ivy Baker Priest, Treasurer of the United States and speaker at the Society's Annual Banquet, February 19.

CAT.

Rear Admiral Bruce E. Bradley, MC, USN, has been appointed Deputy and Assistant Chief of the Bureau of Medicine and Surgery, succeeding Rear Admiral Bartholomew W. Hogan, who was appointed Surgeon General of the Navy. He comes to the new assignment from the Naval Hospital, Oakland, Calif., where he was Commanding Officer. He received his medical degree from the University of Virginia, at Charlottesville, in 1926. He attained the rank of Captain in 1943; his selection for the rank of Rear Admiral was approved by the President in August, 1954 and confirmed by the Senate to date from July 1, 1954.

Dr. William Jackson Peeples is the new Health Officer for Montgomery County, Maryland. He succeeds Dr. V. L. Ellicott, who resigned last year to assume direction of Maryland's chronic disease program. Dr. Peeples is a former resident of Columbus, Georgia, where he was Assistant Health Officer of Muscogee County.

PERSONALS

Dr. Robert H. Harmon, Washington's popular physician-choral leader, was awarded the annual Award of Merit by the **George Washington University Medical Society,** February 19, at its annual banquet at the Shoreham Hotel. The award was presented by **Dr. Leland E. Stevenson,** President of the Society. Guest speaker for the dinner was Mrs. Ivy Baker Priest, Treasurer of the United States.

Dr. Harmon, an alumnus of George Washington University School of Medicine (1929), has worked with the student body of the University and with singing groups in the Washington area for the past 25 years. He is Director of the University Glee Clubs, Associate Physician of the Student Health Association, Director of the Singing Capital Chorus of the SPOBSQSA, and founder and leader of the Traveling Troubadours, a University singing group which has traveled over 100,000 miles in the past five years to sing at military bases throughout the world. In connection with his work with the Troubadours, Dr. Harmon was given a citation by the Department of Defense for furnishing outstanding entertainment to the Northeast Air Command, whose base at Thule, Greenland, is an annual Christmas-time stop for Dr. Harmon and his singing students. Mrs. Harmon, a talented piano accompanist, received recognition at the dinner for sharing her husband's avocational interest.

Dr. Frank D. Costenbader, Chairman of the District Medical Society's Grievance Committee, has been appointed to the newly formed national Committee on Grievance Committees and attended the first meeting of the group in Chicago, February 26.

The Committee, created in accord with action taken at the Miami meeting of the American Medical Association, will recommend standards that may be promulgated by the Association as a guide to the organization and functioning of grievance committees in the constituent state and component county medical societies.

Other members of the committee are: Dr. John P. Culpepper, Jr., Hattiesburg, Miss., Chairman; Dr. Cleon A. Nafe, Indianapolis; Dr. George A. Unfug, Pueblo, Colo.; and Dr. Keith Frankhauser, Avon, Ill.

Dr. Harold Jeghers, Professor and Director of the Department of Medicine, Georgetown University School of Medicine, presented a preliminary report on the topic, "An Experiment in Making the Hospital a Graduate Medical Center" before the Annual Congress on Medical Education and Licensure of the American Medical Association in Chicago, February 7. Dr. John Butler, Director of Medical Education, St. Mary's Hospital, Rochester, New York, and Dr. John O'Brien, Director of Medical Education, Mercy Hospital, Buffalo, New York, were co-authors of the paper.

While in Chicago, Dr. Jeghers spoke at the Stritch School of Medicine of Loyola University, February 8, on "Building a Personal Medical Library."

During the week of February 14, he served as Visiting Chief Pro Tem at the Atlantic City Hospital, New Jersey, where he conducted ward rounds and gave a series of daily lectures. Later in the month, February 22, Dr. Jeghers was in Cleveland, Ohio, where he addressed the staff of Cleveland City Hospital on the subject, "Oral Lesions Indicative of Systemic Disease." The following day he gave a lecture at Western Reserve University School of Medicine on "Building a Personal Medical Library."

Dr. Benjamin Manchester was the guest speaker at the Annual Meeting of the North Carolina Heart Association in Gastonia, N. C., February 14. His paper was entitled, "Recent Advances in Cardiovascular Diseases." In the evening he addressed lay members of the North Carolina and Gaston County Heart Association on "The Outlook for the Patient with Heart Disease."

Dr. I. Phillips Frohman, Chairman of the Section on General Practice of the District Medical Society, has been selected to serve as Editor of *Abstracts* by the Board of Directors of the American Academy of General Practice and its Executive Committee. *Abstracts* is a compilation in abstract form of the scientific material and exhibits presented at the Academy's national meeting, which this year was held in Los Angeles, March 28–31.

Dr. Frohman was recently elected to membership in the National Press Club.

Dr. Murray M. Copeland, Professor of Oncology, Georgetown University School of Medicine, participated as an examiner for the American Board of Orthopedic Surgery in Charlottesville, Virginia, April 8 and 9.

On April 14 he attended the first meeting of the Society of Head and Neck Surgeons in New York City. Dr. Copeland is one of the Founding Members of this Society.

In Wilmington, Del., March 30, he was the principal speaker at the Annual Crusade Luncheon launching the drive for funds for the Delaware Division of the American Cancer Society.

Dr. Richard L. Whelton, who has served as Medical Superintendent of D. C. General Hospital since 1949, is now in full-time private practice at 1122 Decatur Street, N.E. Dr. Whelton graduated from George Washington University School of Medicine in 1947; he served his internship at D. C.

General, progressing to resident, admitting officer, and to Medical Superintendent. During World War II he was on leave of absence for 22 months, serving as Captain in the United States Air Force. He is on the staff of the Warwick Cancer Clinic.

Dr. Wallace M. Yater was in Philadelphia, March 8, to speak before the Eighth Annual Postgraduate Course on Diseases of the Chest, sponsored by the Council on Postgraduate Medical Education of the American College of Chest Physicians and the Laennec Society of Philadelphia. The subject of his address was "Etiology and Prevention of Coronary Artery Diseases."

Dr. Julius S. Neviaser, Assistant Clinical Professor of Orthopedic Surgery, George Washington University School of Medicine, **and Dr. William J. Tobin,** Associate Professor of Orthopedic Surgery, Georgetown University School of Medicine, were in Los Angeles in January serving as examiners for the American Board of Orthopedic Surgery. The examinations were held at the University of California School of Medicine, January 27 and 28.

Following the examinations Dr. Neviaser gave an instructional course on "Adhesive Capsulitis of the Shoulder" before the American Academy of Orthopedic Surgeons, February 2, at the Hotel Statler in Los Angeles.

Dr. Sidney Ross, Assistant Clinical Professor of Pediatrics, Georgetown University School of Medicine, was invited to participate in the Eighth Annual Stoneburner Lecture Series and Symposium on Therapy sponsored by the Medical College of Virginia in Richmond, March 28–30. Dr. Ross gave two lectures, "The Control and Treatment of Streptococcal Infection" and "The Current Status of Salmonella and Shigella Therapy."

Two former members of the Medical Society also took part in this lecture series: Dr. Harry F. Dowling, Professor and Head of the Department of Medicine, University of Illinois College of Medicine, and Dr. Sidney Olansky, Medical Director, Veneral Disease Research Laboratory, USPHS, Chamblee, Georgia.

Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, was in North Little Rock, Arkansas, during February, and lectured at the Annual Institute of Psychiatry and Neurology, which was held at the Veterans Administration Hospital.

He was also a lecturer in February at the Connecticut Postgraduate Seminar in Psychiatry and Neurology in Middletown, Conn.

Dr. Jonathan M. Williams and Dr. Maurice Protas have recently been guests of the Dominican Republic.

During his stay in the Republic, Dr. Williams saw a number of patients in consultation, gave lectures to the student body of Universidad de Santo Domingo Facultad de Medicina and to practicing physicians of Ciudad Trujillo, and performed a number of neurosurgical operations. Most of these operations took place in the large community hospital named after Dr. William A. Morgan, Washington otolaryngologist, in grateful recognition of his gratuitous services to the citizens of the Dominican Republic during many visits to that country.

Dr. Protas gave a series of lectures on diabetes to practicing physicians and to medical students in the Dominican Republic and Puerto Rico during the latter part of March. He spoke on "Recent Studies on the Use of Lente Insulin," "The Management of the Surgical Diabetic," and "Diabetes Detection and Diagnosis." These lectures were prepared in conjunction with his associate, Dr. William Kurstin.

Both doctors are faculty members of George Washington University School of Medicine; Dr. Williams is Associate in Neurological Surgery and Dr. Protas, Associate in Medicine.

Dr. Addison M. Duval, Assistant Superintendent, St. Elizabeths Hospital, was invited to participate in the University of Chicago Law School Conference Series, February 28. This, the seventeenth of the series, entitled "Insanity and the Law," was a gathering of distinguished members of the legal profession from many parts of the United States. Dr. Duval presented a paper on "The Mental Health Problem in the United States Today." He also participated in a panel discussion on the new test of insanity, which followed a reception and dinner at the Quadrangle Club of the University. The auditorium was filled at both the afternoon and evening sessions and it was the opinion of many in attendance that this was the most successful in the Conference Series.

Dr. Edward H. Cushing, formerly consultant to Dr. Frank B. Berry, Assistant Secretary of Defense for Health and Medical Affairs, has been appointed Deputy Assistant Defense Secretary.

Dr. Jacob J. Weinstein reports an interesting trip to Havana, Cuba, during the latter part of December, 1954. On December 27 and 28, at the invitation of Dr. Jose Iglesias de la Torre, he made ward rounds at the University of Havana, Meecedes Hospital. He also gave lectures there on "Polyps of the Colon" and "The Value of Routine Dextran during Major Surgery."

On December 29, he was invited to the Hospital Militar by its Director, Colonel Luis Iglesias de la Torre. Dr. Weinstein gave a lecture to the staff on "Clinical Evaluation of Dextran and Its Use in Military Medicine." An exchange of ideas with hospital staff personnel was most rewarding, he said. They are extremely interested in what is being done in the United States in surgery and research.

Dr. Weinstein in turn invited Dr. Jose Iglesias de la Torre to be a guest speaker at the Scientific International Academy of Proctology in New York, March 23–26, where he spoke on "A Surgical Procedure for Carcinoma of the Rectosigmoid without Abdominal Colostomy."

Dr. Frank D. Costenbader was in New Orleans the first week in February as one of the instructors for a week-long program on strabismus, sponsored by the New Orleans Academy of Ophthalmology, January 31–February 4. He spoke on "Nonsurgical Treatment of Strabismus" and gave a two-hour lecture on "Diagnosis and Management of Esotropia."

On March 16, Dr. Costenbader was in Boston, where he delivered a paper on "Diagnosis and Treatment of Intermittent Esotropia" before the New England Ophthalmological Society.

Dr. Morris Silverman has been appointed roentgenologist to the Tuberculosis Control Division of the District of Columbia Department of Public Health. He began his new duties on January 31 after resigning his position with the Veterans Administration, where he was Chief of the X-ray Unit of the Veterans Benefit Office.

Dr. Edgar W. Davis was the guest lecturer at the Third Tri-State Tuberculosis Case Conference which was held in Roanoke, Virginia, March 13–15. His address was entitled, "Indications for Excisional Surgery." He was also moderator for a panel discussion during one of the morning sessions.

Dr. Zigmond M. Lebensohn addressed the Naval flight surgeons of the U. S. Naval School of Aviation Medicine in Pensacola, Florida, March 3. The title of his address was "The Psychiatric Aspects of Medical Practice."

Several more physicians have moved away from Washington:

Dr. Alfred Brockunier, Jr. has been a resident in surgery at the Memorial Hospital in New York City since July 1, 1954.

Dr. Raimundo W. Rodriquez is located at 3470 N. Meridian Street, Indianapolis, Indiana, and is a member of the Indianapolis Medical Society.

Dr. Eugenia E. Murphy has moved to the Northwest. Her address is 1553 S.E. Henry Street, Portland 2, Oregon.

Dr. Ergi J. Pesiri has been a resident in radiology at the USPHS Hospital, Stapleton, Staten Island, N. Y., since the latter part of 1954.

CORRESPONDENCE

WASHINGTON 24, D. C.
December 8, 1954

DR. JAMES J. FEFFER
1711 RHODE ISLAND AVENUE, N.W.
WASHINGTON, D.C.

DEAR DR. FEFFER:

The editorial appearing in the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA for November, 1954, Volume XXIII, Number 2, entitled "Danger in the Community," was indeed a revealing and alarming statement.

Since the recent reorganization of the Department of Public Health the Division of Tuberculosis has been assigned to the Bureau of Disease Control, for which I am responsible. Therefore, in the last one and a half years I have not become aware that there has been any change of policy in the Department of Public Health in so far as sanatorium and hospital therapy is concerned. In my opinion, sanatorium treatment for tuberculous patients has by no means been replaced by modern chemotherapy.

The sanatorium is serving two important functions. First, it is the best place for the patient to stay while he gets treatment, and, secondly, it provides isolation which prevents the patient from spreading disease to others. It is my firm conviction that the patient with active pulmonary tuberculosis can be more wisely treated, generally speaking, under the daily supervision of sanatorium staff physicians than if he or she is treated either on an outpatient basis or in the home. I am fearful that the apparent quick physical improvement in a number of instances of patients under modern antimicrobial therapy may delude both patient and physician into thinking the disease is cured when it is only quiescent, and carriers of this communicable disease may be returned to their homes with disastrous consequences to both relatives and friends.

I am aware that the public press and other media of dissemination of information have given what I feel is erroneous and controversial information to the reading public. When the layman reads that home care is credited with cutting tuberculosis deaths, such as appeared in the *Washington Star* of November 17, 1954 quoting a statement from the Commissioner of Health of the City of Baltimore, it is disconcerting and confusing. Dr. Williams did explain that there was a surprising drop in mortality but, at the same time, he stated that this would also increase the morbidity or potential morbidity of the patients returning to the community after a shorter hospitalization period than would have been expected prior to the use of the current antimicrobial drugs.

The December 6 issue of *Time Magazine* on page 66 has an article entitled "The Beginning of the End," which by now has reached several million people. The last sentence of this article, which I quote, states, "Tuberculosis isn't dead but sanatorium treatment is." This sort of publicity reaches so many more people than medical journals or scientific reports that it is readily understandable how this misconception is arrived at in the minds of the general public.

Yet, under no circumstances has the policy of the Department of Public Health been to substitute home care for hospitalization. It is true that during a post-hospitalization period, after the patient is no longer a danger to the community, he may be given chemotherapy on a follow-up basis. Some time ago in emergencies a small number of patients had been given chemotherapy prior to hospitalization, but it was never considered to be our policy to continue or substitute such a procedure for hospitalization.

I am sure you do not wish to do a disservice to the District of Columbia Department of Public Health Tuberculosis Control Division. It is exerting every means within its limitations of staff and budget to render to the community as high quality a service as is possible under the circumstances.

I would be grateful if this misunderstanding could in some manner be corrected.

Assuring you of my interest and coöperation, I am,

Very truly yours,
John R. Pate, M.D., M.P.H.
Chief, Bureau of Disease Control,
District of Columbia Department
of Public Health

Washington 6, D.C.
December 30, 1954

Dear Dr. Pate:

The following is submitted in response to your communication of December 8 criticizing my editorial in the Medical Annals of the District of Columbia, November 1954, Volume XXIII, Number 2.

In your letter you make the statements ". . . I have not become aware that there had been any change of policy in the Department of Public Health in so far as sanatorium and hospital therapy is concerned" and ". . . under no circumstances has the policy of the Department of Public Health been to substitute home care for hospitalization." I have been under the very distinct impression that the policy of the Department of Public Health has changed within the past six months in regard to the hospitalization of patients suffering with tuberculosis. To support this impression I would like to quote from the "Report on the Need for a 300 Bed Building at D. C. General Hospital for the Treatment and Rehabilitation of Tuberculosis and Other Chronic Diseases (Draft Rev. 12-21-54)."

Page 3—"Since we have stopped the home care of new cases, the number in need of hospitalization is greater. . . ."

Page 10—"More patients will be recommended for hospitalization when more tuberculosis beds become available."

Page 14—"With the discontinuance as of July 1, 1954, of the temporary expedient of putting prehospitalized active cases on home care antimicrobial therapy. . . ."

In addition I might refer you to a statement in the "Annual Report, Fiscal Year 1954, D. C. Department of Public Health"—"An adjunct of the clinic activities is the division's home care program. A newly diagnosed active case of tuberculosis is first considered for treatment in this program, i.e., if isolation and drug therapy can be administered at home."

I think the obvious conclusion from the above statements taken out of official Health Department publications is that there has been a change in practice in regard to the home care of tuberculous individuals.

I am sure you appreciate from my past contacts with the District of Columbia Health Department over a period of many years that I am sincerely interested in improving the tuberculosis problem in the District of Columbia. I certainly had no intention, when writing the editorial, of doing a disservice to the Public Health Tuberculosis Control Division. I appreciate the fact that it is trying to render a high quality of service. I was merely trying to support the Health Department in our common desire for an early end to this dreadful disease in the District of Columbia.

If you still feel that I have been responsible for creating a misunderstanding by making such a "revealing and alarming statement," I would be happy to receive correspondence from you.

Sincerely,
JAMES J. FEFFER, M.D.

WASHINGTON 24, D.C.
January 7, 1955

DEAR DR. FEFFER:

This will acknowledge and thank you for your letter of December 30, 1954. Its contents were noted with care. The quotations cited by you might tend to cause confusion between practice and policy. However, I do appreciate your comments.

Sincerely yours,
JOHN R. PATE, M.D., M.P.H.

Atherosclerosis—Yater

(*Continued from page 178*)

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Psychologic Aspects of Anesthesia—Boverman

(*Continued from page 182*)

problem would instinctively come to the same conclusions. The principles involved are those which are utilized in the psychotherapy of any acute psychologic crisis and involve such matters as providing a dependable, benevolent, and protective authority figure, and the ability to put oneself in the other person's predicament. In addition, there is preparation for a painful event, which involves the examination and elucidation of previously unknown and vague fears in order that they can be formulated and then handled by providing realistic facts concerning their validity. In general, the essence in handling these problems is that the physician and staff treat the patient as they would like to be treated under similar circumstances and in accordance with existing knowledge.

3210 Wisconsin Avenue, N.W.
Washington 16, D.C.

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Washington Clinic

(*Continued from page 200*)

President of the Association. Other officers are Dr. Allan E. King, Vice President; J. Scott Milne, Vice President; Dr. Robert G. Taylor, Secretary; Dr. Joseph A. Bailey, Treasurer.

On the evening of the day on which the dedication was held, the Clinic held open house for Washington physicians, many of whom are well acquainted with members of the medical staff. They were taken on a tour of the building by staff members.

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XXIV *May*, 1955 NUMBER 5

EMOTIONAL PROBLEMS AMONG EXECUTIVES*

FRANCIS J. BRACELAND, M.D.
Medical Director, Institute for Living, Hartford, Connecticut

ALTHOUGH Chesterton was writing in a different culture when he said, "It is strange that men should see sublime inspiration in the ruins of an old church and see none in the ruins of a man," this observation is just as applicable today. As a representative of a discipline which has the care of 650,000 of our citizens who are in mental hospitals, this remark is particularly poignant. When we recognize that 200,000 others will have their first admission to mental hospitals this year and that 54 per cent of the Nation's hospital beds are occupied by mental patients, we are appalled. Were any other condition responsible for such an extreme loss of manpower, let alone the tragedy and heartache involved, we would declare a national emergency; but the trouble is mental, and, although the people find the subject disturbing, reports of it are met by a sympathetic apathy. The ruins of a man attract little attention. The same may be said about the tensions, the pressures, and the situations which help to ruin a man; they are made up of the pressures of daily living in these insecure times plus the hazards inherent in the particular job in question. Many of the hazards are brought to the job by both worker and executive, and these hazards have to do with their own personality maladjustments, their mood disorders, ambitions, deep-seated inferiority feelings, family, financial and related difficulties, all accentuated by the pressures of today. The worker, no matter what his position, brings to the scene of his labors all of his difficulties, his own troubles and those which affect his family. These troubles unfortunately cannot be left in the check room or in the parking lot.

This, then, is a thesis of modern psychiatry, and it holds that patterns of behavior are determined not only by the conditions reigning within the individual but also by the welter of external forces impinging upon him. He approaches his job and his relationship with others in accordance with his background, his education, his abilities, and the state of his physical and mental well-being. What happens to him then depends upon the pressures inherent in his job. Man is a psychosomatic unity predisposed by constitution and temperament, but conditioned also through a long series of changing environments to react in a certain way to the daily vicissitudes of life.

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* Delivered at the Annual Dinner, January 25, 1955, during he Fifteenth Annual Congress on Industrial Health of the American Medical Association, co-sponsored by the Medical ociety of the District of Columbia, and held in Washington, . C., January 24–26, 1955.

Maladjustment in the adult tends to revolve around 3 major life areas: (1) the home and domestic relations, (2) the community and social relations, and (3) work and industrial relations. The whole problem is rarely found in one place, but the provision of opportunities for satisfying work is an essential step toward the establishment of tension-free and rewarding relationships in these environments. Not only does work provide the individual with his means of livelihood; it also provides or fails to provide a means of self-realization in productive activity, the satisfaction of fellowship and status in a group, and other values which contribute to the sense of inner security.

One of the disadvantages of our modern industrial set-up is that all too often work fails to provide the emotional satisfactions men need in their occupation. Many jobs fail to offer an adequate outlet for man's instinctive energy, particularly his aggressive energy. Frequently in industrial quarrels it is this: The worker is striving more for job satisfaction than for strictly material advantages. This the executive has difficulty in believing, but it has been demonstrated in several careful surveys. The radical division of labor, the monotony of fragmented tasks, the dead-end aspect of many routine duties, the lack of opportunity for initiative and creativeness, all add up to job dissatisfaction. Here is noted the loss of the relative self-sufficiency and inner satisfaction that marked the era of individual craftsmanship, the time when the individual craftsman received great satisfaction from contemplation of the finished product of his handiwork. The great majority of people are anxious to work, but sometimes they dread monotony which deprives them of real job satisfaction. The result may be, and often is the displacement of hostilities from the job, perhaps to management or to the home and to the community. The displacement of dissatisfactions to the home is well known to you; perhaps you have heard of the man who comes home like a bear with all of his problems seething within him for the family to bear the brunt of them. The results of displacement of dissatisfactions to management are well known to you. Incidentally at this point it is well to remember that from 60 to 80 per cent of all dismissals in industry are due to social incompetence rather than technical failure.

It cannot be said that the executive in modern industry is free of the frustrations that contribute to emotional instability in the labor force. He is subject not only to the strains of his demanding job, but also to the hazards of modern competitive society and to the hazards which he brings into his office with him. These latter are probably the most serious of all. They have to do with personality maladjustments, mood disorders, and unconscious motivations patterned in childhood. Like the worker everywhere, the executive brings to the job all his hopes, his fears, his worries, his disappointments, his family troubles—all operating against the background of a changing social panorama. When the executive is emotionally disturbed, there is always a major problem in the organization. This is true not only of the top men, but of people along the entire supervisory echelon who are in charge of other people. It is axiomatic that one badly maladjusted supervisor can cause more trouble in a plant than an epidemic of measles. Strangely enough, this individual rarely recognizes his problem himself and is very much surprised when told about it. Preventive psychiatry in industry must start at the top if it is to be effective.

Personality trends in executives cover a wide range from the compliant to the overdominant patterns, and neurotic trends are not infrequent in these key people. They are displayed in hostility and aggression, frustration and anxiety, pessimism or overoptimism, fictitious independence or morbid dependence. Whereas the realistic executive will surround himself with the best in brains and skills, the paranoid and reactionary executives will surround themselves with inadequates who will take punishment.[1] The results of this may be imagined. Emotional stability in any executive enhances the morale of his whole organization. A high threshold to frustration is certainly required if he is to be successful, since the possibilities for blocking, confusion, error, and unpredictable volatility are legion in the industrial set-up.

To understand the personality problems of the executive group, the life story of the industry and the growth of the individual who manages it are essential. An industrial organization is a social structure. The kind of organization more or less predetermines the kind of leadership, the kind of communication, the kind of worker-supervisor relations. Whereas some organizations are too loosely constructed, others are too rigid and departmentalized. The rapid growth of an organization with insufficient reorganization or modification of personnel procedures in line with growing needs will certainly make for serious difficulties. Although all of this is a matter of business and industrial organization—and you know much more about that than do I—I can assure you that without a real attempt to eliminate jealousies, rivalries and frustrations, and an attempt to build up an *esprit de corps*, effective management is virtually impossible.

The great majority of modern executives are conversant with human relations problems, and in theory they know what they should do about them. Unfortunately, at times they are unable to implement this knowledge because of personality difficulties within themselves. Present attitudes, as we have said, are based on previous experiences with people important in the life of the individual; and where early experience has aroused anxiety, defense reactions have developed that are difficult to overcome. No person is free from such experiences, and there will always be areas of difficulty in which one will not accurately size up the problem or communicate adequately with those involved, or handle the situation with the best of intelligence and foresight. Certain kinds of anxiety-driven behavior in particular will have adverse effects on the efficiency of the organization. Among them is the constant yearning for the approval of others or the drive to demonstrate one's superiority at all costs, overauthoritative or overagreeable behavior based on insecurity, displaced aggressions, and *laissez-faire* supervision. These reactions spell difficulty whenever they occur.

Some people become administrators by chance; others do so by outliving their competitors. Still others choose administrative work for a career. Those who succeed seem to have certain motivations for their choice and certain personal traits that account for their success. The motivations consist in deriving a sense of well-being and security from knowing how to get others to do things that are worthwhile. Success in achieving this seems to date back to earlier experience with parents and siblings when the individual learned to handle with ease and spontaneity the problems of his early relationships. There are highly intelligent and resourceful people, capable of formulating excellent plans, who have no idea how to interest or induce anyone else to carry out their ideas. Others, less well endowed perhaps, may do so readily. This personality difference is of great importance and warrants further definition and study.[2] One finds this sometimes in professional men, who, capable as they may be, are unable to handle interpersonal relationships at all and fail. Success in interpersonal relationships does not depend upon intellectual endowment; it depends upon emotional maturity, which is the *sine qua non* for successful relationships with others.

The top man often is faced with distinct problems. Since he ordinarily has no superiors to please or to be obliged to manipulate, his motivations and skills must be different from those required at other levels. Among these requirements, emotional maturity and independence of judgment rank high on the list. It is questionable that these traits will be found in him if they were lacking on the way up the ladder. It is further doubtful that the personality characteristics contributing to a man's rise to the top are always conducive to good leadership once he gets there. We saw this in the military service in a dramatic way, and the so-called old sergeant's syndrome was well known to us. This being so, the executive may be in for trouble, not only in handling his job and getting others to handle theirs, but in his own emotional security and in the maintenance of his mental and physical health. The industrial organization provides a way of life both for the executive and the people who work under him. In this way of life money cannot be equated with job satisfaction for long. Neither will it buy loyalty or morale. These depend to a great degree on the personal income gained from human relationships based on mutual respect, dignity and confidence, and the sense of really belonging to the group.

I have taken this time to recreate for you some of the background material for the executive's problems. Before going on to a consideration of his physical and mental health, I would like to mention one other facet of his difficulties, one which to me is the most tragic of all. Sometimes a man by hard work and ability gets to the top and is looked upon by the world as a great success, but occasionally this success has been bought at too high a price—en route he has lost his family. The situation is particularly difficult if boys are involved. Like as not the father has had little time for them; perhaps because they do not possess his drive he has written them off—this is tragic. Boys need a father or a father surrogate in order to develop masculine identification, and I have seen more successful executives than I care to recount who had to take this problem into account too late to do anything about it. Obviously success is not worth this loss—it turns bitter in one's mouth. It is a potent source of pressure upon the busy executive to have lost his family while he fought his way up.

It is not the particular nature of the forces and pressures upon the executive that may make him vulnerable to emotional or physical disorders; it is how these things are perceived and the amount of conflict directly or indirectly engendered by them. Of 1,000 executives examined by the Life Extension Examiners of New York a few years ago, 41.6 per cent showed slight, and 38.6 per cent significant impairments in physical health. An additional 1.6 per cent required close medical supervision. The average age of the group was 47.6 years. There are evidently factors related to tasks involving heavy executive responsibilities that tend to affect the well-being of individuals and to aggravate existing physical disabilities. Weighty decisions subject them to frequent emotional strains. Necessary travel, meetings, and innumerable advisory and administration duties often leave the executive tense and exhausted with little if any time for essential relaxation. By the time a man reaches the top, he may have already passed the summit of his physical powers. Physical changes incident to advancing age are manifesting themselves, and he needs to take good care of himself if he expects to keep mentally and physically fit. The executive who fails to budget his personal life wisely is usually headed for trouble physically as he is emotionally. Excellent results have been obtained by companies which have maintained health programs for their executives. Included in such programs are voluntary yearly diagnostic health examinations given by a physician or clinic chosen by the individual.[3] To the complaint that this is time-consuming or expensive we answer: How expensive is the health and well-being of key men, and how expensive does it prove to be to be prodigal with the welfare of capable people?

The stress disorders of modern life, since they so frequently affect the executive, are particularly pertinent to industrial medicine. In addition to neurosis and other strictly psychiatric conditions, the large area of psychosomatic illnesses should engage careful attention. Included among such disorders, and especially prone to affect the executive, are coronary artery disease, gastric and duodenal ulcer, colitis and obesity. High blood pressure is also found rather frequently; but strangely and in contrast to general belief, the typical hypertensive personality is said to be one who usually falls short of his ambitions, even though he is inclined to choose an occupation somewhat below his real abilities because of his fear of failure. The psychosomatic disorders are illnesses in which emotional factors play a very large part, both as precipitants and as aggravating forces.

Heart attack is the enemy of the professional worker—the hurrying physician, the controlled, tense precision scientist, the supercharged business man.[4] Stress, anxiety, and premature coronary death occur predominantly in the male and with special frequency among persons who are or would like to be 'top dogs' in their own world. Analysis of such cases reveals that to these individuals relaxation spells danger. They are under a peculiar controlled tension which they require in order to function. They unknowingly are fearful of the anxieties which might arise when they relax. In this way they are like some of the young females we encounter who, constantly on the go, are afraid of what they might hear in their own heads if the music should stop. Ridden by ambition, by a desire to excel, they perhaps have impulses of such primitive quality that the resulting guilt must be constantly watered down to prevent severe depression. However this may be, it is characteristic of people who suffer from heart disease that they are hard workers, driving themselves without mercy, proud of the long hours they work, and resentful of lack of appreciation for it. These people are victims of the psychologic circumstances that underlie their apparent ambition. The hard work they insist upon is less responsible for their physical disturbance than the emotional conditions that lead to it.

Heart disease patients show a characteristic carelessness of health, irregular eating habits, frequently an excessive use of tobacco and coffee, and a disregard of sleep. These are certainly danger signals; but the abandonment of the bad habits in some cases is likely to set up a new emotional disturbance even worse than the previous one. It is as if they act in response to a self-destructive tendency, though they try to keep it well covered. Before they can safely give up their bad habits, they must be helped to understand why they have them. The real goal of treatment is to make the patient feel differently. Even when the situation cannot be changed drastically, many patients improve if they understand what is happening and realize why they are driving themselves. Patients of this type have trouble in enduring objective judgment even by themselves. Praise to some is an elixir, correction a poison, even as it is to a 5-year-old child. Failure in the area to which they have attached their ambitions can lead some of them to invalidism and even to death. The relationship between the particular type of heart trouble the individual develops and his whole background of psychic experience has been fairly well established. Preventive psychiatric treatment when the heart first becomes suspect can do much to avert a serious and even fatal early outcome.

There is a popular legend abroad that ulcers are, above all, the affliction of tycoons. That they occur frequently in successful business men is true enough, but they occur with equal frequency in any so-called go-getter who has a particular type of personality development. Research in psychosomatic medicine suggests the following chain of events and you are free to agree or disagree. The ulcer patient in his childhood is usually devoted to his mother but yearns for independence. As he grows older, he is torn between his dependent impulses and his compulsion to assert his independence. He therefore reaches out for responsibility. Unlike the coronary type who has a drive to excel, the ulcer personality uses his ambition as a cover-up for his dependent pull. He does not necessarily seek to climb over others, although he may display self-assertive traits to the point of appearing aggressive. He refuses help and assumes unnecessary burdens, and these propensities may help him to the top of the occupational ladder.

I shall spare you a recital of the psychologic and physiologic reactions which are operative in ulcers and call to your attention the fact that instead of ulcers other disturbances in the digestive tract may occur in people who can accept neither the dependent nor the independent role in life. Colitis is a disorder of personalities frequently encountered and it too has psychiatric aspects which I shall not go into here. Obesity has emotional components, I fear, and anywhere from 10 to 30 per cent of executives and key personnel are 10 per cent above their normal weight. The same is true of nonexecutives incidentally. Obesity shortens life and affects the health adversely. The incidence of degenerative diseases, including hypertension, diabetes and heart disease, is higher in those of us who are overweight than it is in individuals of average or below average weight. Psychologic factors are a part of the problem in the obesity that comes from overeating and, strangely enough, they include such motivations as self-approval, satisfaction of dependent drives, seeking appreciation, and escape from boredom.

Unless the executive has some definite warning of the dangers of overweight, he may be difficult to persuade to change his eating habits. He may deny that he overeats, claim that all his family were overweight, or rationalize even more effectively. The fact remains that food may be supplying an emotional need which we should recognize. As an executive with heavy responsibilities, subject perhaps to nervous tensions, feelings of frustration and suppressed hostility, at work or at home, he may be relieved by the consumption of food, in quantities or in niblets. Attendance at banquets and other functions adds to his temptations. Worrying about his weight brings on more tension and more eating. The doctor who advises the overweight individual as to diet and changes in his way of life should do so on the basis of an understanding of the man's stresses and patterns of life on and off the job. The most important aspect of the task is to sell the executive on the real need for changing his eating habits, either qualitatively or quantitatively. The use of group psychotherapy for obese employees, particularly on the executive level, is a project that would pay good dividends.[5]

The executive in industry, then, because of the stress of his position, but more so because of the psychologic equipment that tends to bring him to posts of responsibility, is often vulnerable to the development of psychosomatic disorders, particularly the ones I have mentioned. The incidence of allergy, arthritis, migraine and skin disorders, and of other conditions with psychosomatic elements, is probably no higher among executives than it is in any other group of people. But that is high enough. Psychosomatic disorder is the price many people pay for a way of life. Owing to training and cultural pressures, an individual develops a certain idea of how he is expected to appear and behave. His reactions to what he perceives as danger are often out of keeping with his conception of how he ought to react. The danger (emotional danger, fear of failure, etc.) and the conflict it evokes, even though imperfectly recognized, may persist indefinitely, and unsuitable protective reaction patterns originally set up to deal with emergencies may operate continuously. Such reactions may lead to serious changes in the function and structure of the somatic systems.

It is important that the individual become aware of the basic nature of his difficulty. The afflicted executive needs some psychologic reeducation along with a diet for his ulcer. As

(Continued on page 275)

PEDIATRIC ALLERGY*

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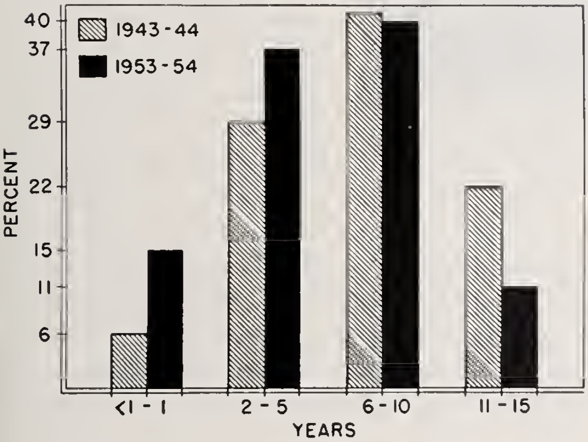
SINCE I do not have time to discuss all phases of pediatric allergy, I have selected for consideration at this time allergic rhinitis, asthma in the very young child, and the use of steroids and antibiotics in allergy. These have been chosen because they currently seem to me to be the most important and in part the most controversial aspects of pediatric allergy.

CHART 1

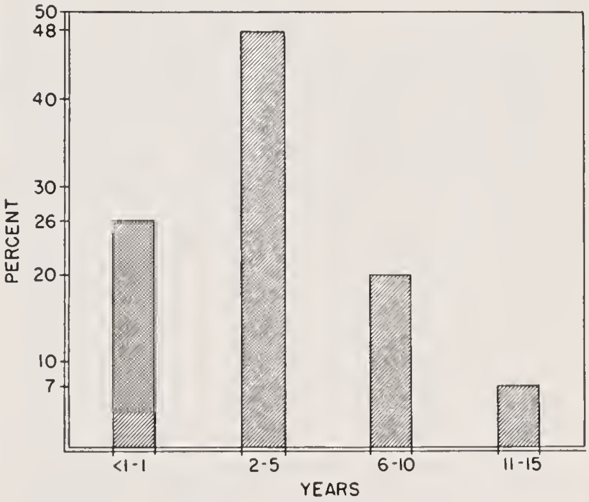
Age of Allergy Patients at Initial Visit



Physicians and parents are becoming increasingly aware of allergy as a cause for respiratory and other symptoms in children. This is demonstrated by the decreasing age of our patients. To check this impression I compared the age at the first visit for the year 1943–44 with the age when first seen in 1953–54. It will be noted that now there are twice as many children first seen at 1 year of age or younger than there were 10 years ago (chart 1). Although there are other possible causes for this shift in the apparent age of onset of allergy, such as increasing air pollution and exposure to nonspecific irritants of the respiratory tract, it appears that better recognition of the early symptoms is the most likely explanation for this trend. In contrast to the age at the first visit, an analysis of the age of onset of symptoms as determined by the history of the patients seen in 1943–44 (chart 2) shows that the majority of these children actually showed evidence of allergy before 2 years of age, even though allergy treatment was not sought until several years later.

CHART 2

Age of Allergy Patients at Initial Symptoms, 1943



In spite of the trend toward earlier diagnosis of an allergic basis for nasal symptoms, there are still many children in whom this cause for so-called "colds" is not recognized. This may occur because the symptoms are primarily at a nuisance level and not seriously incapacitating.

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* Presented before the First Interstate Scientific Assembly of the Medical Society of the District of Columbia and the Medical Society of Virginia in Washington, D. C., November 1, 1954.

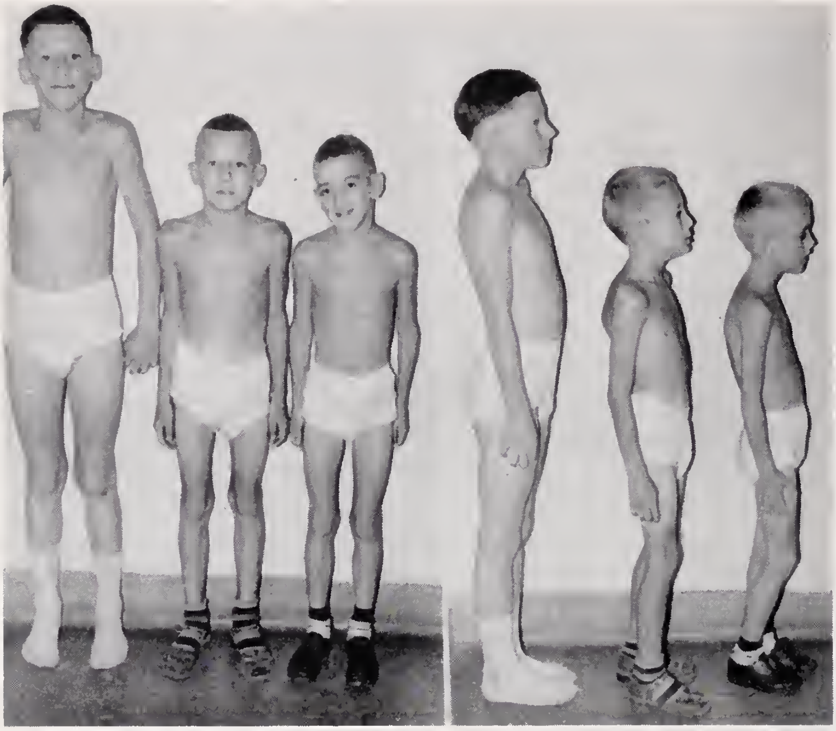

FIG. 1. So-called "allergic facies" demonstrated in 3 young patients with allergic rhinitis, nasal polyps, and chronic asthma. Note change in posture, a typical development in chronic asthma.

After sniffling, rubbing an itchy nose, and grimacing, he may develop an "allergic salute," paroxysms of sneezing, mouth breathing, and an adenoidal facies. "He keeps a cold," for which he receives antibiotics and nose drops repeatedly. After his first autumn cold he may have a low-grade fever, and if this persists he may even be suspected of having mild rheumatic fever. If such a child is allowed to progress in this fashion without any specific treatment the odds are high that he will develop bronchial allergy and nasal polyps, and he is almost certain to have poorly developed sinuses with resultant facial deformity. Figure 1 shows 3 boys, aged 10, 8 and 6 years, with allergic rhinitis, nasal polyps, and chronic asthma, who have so-called "allergic facies" with flattened cheek bones, short upper lip, narrow nasal passages. They also illustrate typical changes in posture, with tense sternocleidomastoid muscles and stooped shoulders which develop in chronic asthma.

The diagnosis of allergic rhinitis is usually simple. The mucous membranes have a pale, boggy appearance, approximating the color of the skin in white children and that of the buccal membranes in colored children. The turbinates are large and obstruct the nose. The discharge is clear, glairy, nonirritating mucus. In an acute coryza or a more chronic infection the membranes are reddened, and the secretion at first is thin, watery, irritating, excoriating the nostrils, and becoming mucopurulent as the infection progresses.

One of the simplest and the most reliable of all laboratory tests is that of staining nasal discharge for eosinophiles exactly as one stains blood films.[1] The child blows his nose into waxed paper, or a little secretion is obtained by swab from the posterior portion of the nose. This material spread out on a slide, dried in the air, stained with Wilson's or Wright's stain a few seconds longer than required for blood films, will reveal eosinophiles if the child has an allergic rhinitis. Polymorphonuclear cells will predominate in an infectious rhinitis. There are several special stains, such as Hansel's and May-Greenwald's, which may stain eosinophiles a little more easily, but they are not essential for an adequate test.

Allergic rhinitis is one of the allergic conditions which respond best to antihistaminics. If the first one tried does not give adequate relief, one of a different type should be prescribed, since there is great individual variation in their effectiveness.

The merits of nose drops in allergic rhinitis is a disputed point. They are palliative at best and may add so much more moisture to an already water-logged membrane that their temporary shrinking effect may be overshadowed. Children, too, experience the "rebound" phenomenon, which may result in excessive use of nose drops and in rare instances has been known to produce toxic reactions from overdosage.

In very obstructed noses a modification of the Proetz self-displacement treatment is often helpful.[2] This maneuver is done by having the child lie flat on his back, head hanging down over the edge of the bed, so that the opening of the nostrils are horizontal. One half dropperful of a mild nose drop such as ⅛ to ¼ per cent Neosynephrine* is quickly instilled into each nostril. The nose is then pinched and held thus momentarily closed, while the child swallows. The head is kept in the dependent position for 2 minutes. The gentle suction produced by swallowing pulls the nose drops back and displaces them into the sphenoid and ethmoid sinuses. This type of treatment should not be done oftener than twice daily, except in unusual circumstances, and should not be continued for long periods of time, nor should it be used in the first few days of acute coryza.

When one has attended to the symptomatic treatment, efforts should then be made to unearth the cause of the rhinitis and to treat it either by avoidance or desensitization. In this connection, even very young infants and children tolerate desensitization injections as well as, or even better than older children and adults.

Nearly every physician who attends children has been faced at some time with a small child in severe, acute respiratory distress. Asthma, particularly the first attack, is frequently a diagnosis of exclusion of other conditions. The doctor's midnight task is made harder by the difficulty in making an adequate chest examination in a baby or young child who is acutely ill, agitated, crying, and uncoöperative.

How should one approach the diagnosis of asthma in little patients? If one's previous knowledge of the child includes bouts of feeding difficulties clearly relieved by diet changes, frequent colds without much fever and controlled by antihistamines and not contracted from others, skin rash such as eczema and hives, and a strong and close family history of allergy, one can have a high index of suspicion that the wheezing is asthma, no matter how young the patient. If the rales heard are chiefly musical expiratory ones, this is of some help, although much of the time inspiratory musical rales are also present or are the only ones heard. If these findings are coupled with eosinophilia in the nasal secretions and blood, that too is helpful. However, most of the time these features are not so neatly packaged and plainly labeled.

I find it helpful to ask the mother to describe in detail the first attack of wheezing, including where the child was and what he was doing. If the first symptoms stand out with clarity in her memory, one may be able to identify a causative allergen, or one's index of suspicion of foreign body aspiration may justifiably rise. If the first attack cannot be clearly recalled, or the trouble began insidiously, one is apt to be dealing with infection of some type, or a less violent sensitivity. Within minutes to an hour the bronchospasm of true asthma responds promptly and well to adrenalin and aminophyllin in most young children. If this relief does not occur, one should suspect that he is either not dealing with asthma, or that asthma is complicated by an accompanying infection. When the time is opportune, soon after recovery from acute symptoms one is justified in skin-testing such a child. Positive skin tests may be as valuable in corroborative evidence of the allergic nature of the disease as they are in indicating specific sensitivities. When several of the features described are present, one can suspect with reasonable accuracy that this is asthma. When only one or two are present the diagnosis of asthma decreases in likelihood. Chest roentgenograms of children who were referred by physicians with the diagnosis of asthma, or the suspicion of asthma because of the severe respiratory distress, are reproduced in the 5 illustrated cases.

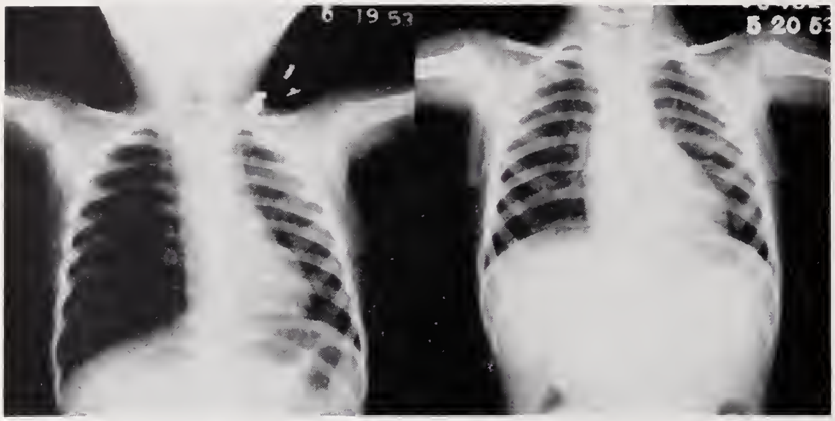

FIG. 2. Case 1 (J. M.). *Foreign body, right main bronchus.* Film on left taken on admission, showing obstructive emphysema; film on right after bronchoscopy, showing normal chest.

Case 1. J. M., an 18½-month-old boy, developed a mild skin rash from egg at 3 months of age. He had had several respiratory infections accompanied by wheezing during his first 6 months, and a "cold" for 1 week prior to admission to the hospital. Four days prior to admission he coughed and vomited while eating chocolate candy. Moderate, intermittent, nocturnal dyspnea and slight to severe wheezing had persisted during 4 days' observation in another hospital. On admission X-ray films and fluoroscopy showed obstructive emphysema in the right lung (figure 2); at bronchoscopy 3 pieces of almond were removed from the right main bronchus. His recovery was uneventful.

These patients are presented not only to emphasize the difficulty in diagnosing asthma in small children, but to remind us that initial relief of acute respiratory distress is the primary consideration and is the same regardless of the cause in practically all of these conditions.

Acute respiratory distress due to almost all causes is improved by oxygen, removal of obstruction to the airway, and relief of the anxiety which accompanies anoxemia. Relief of obstruction can be accomplished by steam in adequate amounts, which aids in liquefying inspissated secretions. The wetting agents, such as Alevaire* as an aerosol, are similarly useful when proper nebulization can be provided. Postural drainage may be helpful, and in an emergency this may mean forcibly gagging an infant to produce vomiting, and even holding him briefly by his heels. Ipecac alone, or combined with iodides in cough mixtures, is often dramatic in its effectiveness. Careful suction by means of a bulb syringe, if other mechanical means are not handy, may be tried. Bronchoscopy is always mentioned in this connection, and I fear that most of us wait too long before we advise or prevail upon someone to do this procedure in asthmatic children. Honey, or any concentrated sugar preparation, in repeated teaspoonful doses tends to reduce edema of the laryngeal mucosa.

It may seem paradoxical to advise fluids for a child whose mucous membranes are already edematous and who is producing excessive secretion. However, these secretions so quickly become tenacious that their removal by coughing or ciliary action is difficult in a dehydrated child. The younger the child the more quickly he becomes dehydrated during respiratory distress, and the more important is his need for fluid. Other means of relieving obstruction are familiar bronchodilators such as adrenalin, ephedrine, aminophyllin, theophyllin, isopropylarterenol, possibly more familiar as Isuprel, Nor-isodrine, and Aerolone. All of these drugs should be used in small repeated doses for maximum effect on the bronchi and minimum side-effects.

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*Alevaire, 0.125 per cent aqueous oxyethylated tertiary octylphenol formaldehyde polymer, a product of Winthrop-Stearns, Inc., New York, N. Y.

The anxiety which accompanies anoxemia is best relieved by oxygen, but moderate sedation with barbiturates, chloral hydrate, paraldehyde, methapyrilene HCl, ether in equal parts of olive oil per rectum, or ethanol in homeopathic amounts, are all helpful for most little children with acute asthma. One should never use Demerol or any opiate for sedation. The fatalities in adult asthmatics who have been given morphine are so impressive that I believe opiates have no place in the treatment of asthma at any age. Some if not much of the benefit attributed to antihistamines in asthma is undoubtedly due to the sedative effect of many of these drugs. If they have such reactions in a child, they are indicated provided they do not produce excessive drying of the secretions. This review of drugs and procedures includes nothing which is new or unfamiliar, and in any particular patient one will undoubtedly combine several of these measures.

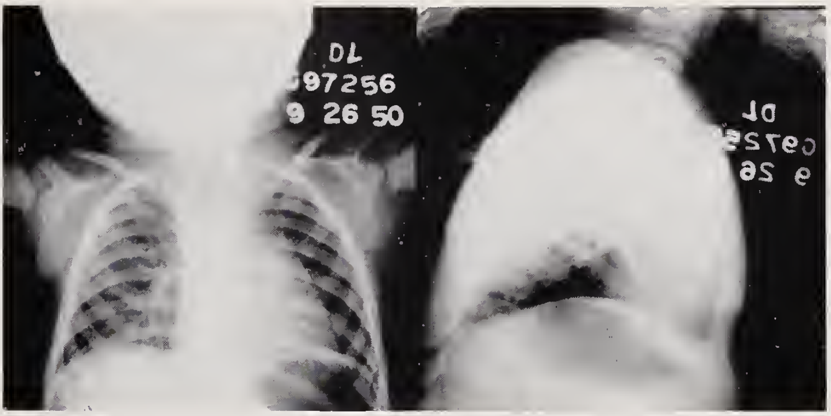

Fig. 3. Case 2 (A. B.). *Foreign body, esophagus.* Initial films, showing only abnormality a questionable widening of mediastinum.

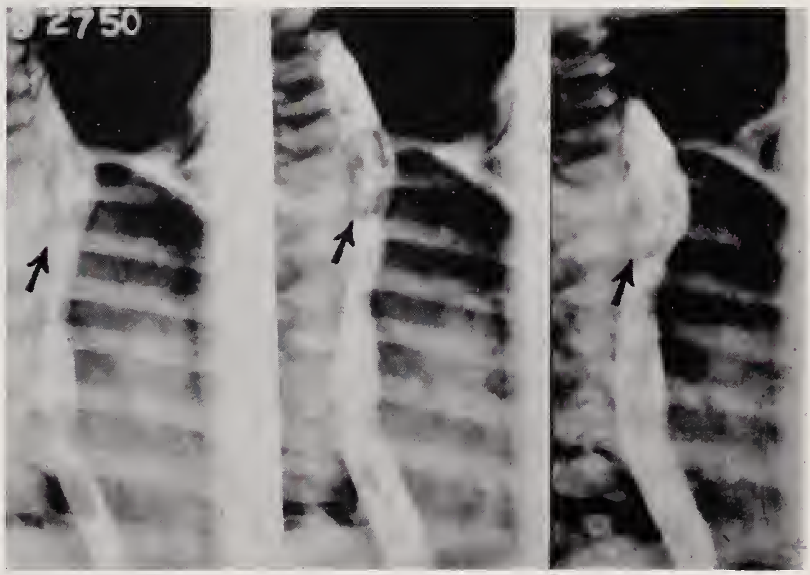

Fig. 4. Case 2 (A. B.). *Foreign body, esophagus.* Arrow indicates nonopaque button in esophagus, with circumference and 4 holes outlined by barium.

ACTH and cortisone are both capable of favorably influencing asthma. After several years of experience with them, there seem to be very valid reasons for using either one for treating the acute asthmatic emergencies. When one considers how many hours of air hunger

Case 2. A. B. was a 2-year-old girl who had her first episode of cough, moderate dyspnea, and mild wheezing while confined to her home with a "cold" and mild fever. She was hospitalized 1 week after onset, at which time X-ray films of chest and bronchoscopy were negative. There was slow and questionable improvement with symptomatic medication and steam. Poor appetite and slight weight loss continued for 2 months. She was referred for allergy study because of recurring wheezing and paroxysmal cough. A detailed description of initial symptoms revealed the child was playing on the floor while her mother was sewing. There was no known history of choking. Feeding history during her current illness disclosed the amount of food eaten had gradually decreased until finally all foods except milk were refused. Repeat chest films and fluoroscopy were negative except for a questionable fullness in the upper mediastinum (figure 3). With barium swallow, an X-ray film revealed a nonopaque button in the esophagus at the cricothyroid cartilage (figure 4). Esophagoscopy with removal of button followed. Her recovery was uneventful.

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some children endure while we move from one procedure to another trying to make them comfortable, we realize, usually by hindsight, that it might have been better to start ACTH, cortisone or hydrocortisone early in the illness.

Most severe status asthmaticus in children is initiated or complicated by infection, and if steroid therapy is used it should be covered by adequate doses of antibiotics. If possible, throat cultures should be taken before giving antibiotics so that the initial drug may be changed to a more appropriate one when the cultures have been identified.

In desperately ill asthmatics intravenous ACTH or hydrocortisone is most rapidly effective, usually within 4 to 6 hours. ACTH Gel also is effective within 4 to 8 hours after administration; oral cortisone and hydrocortisone will have some effects within 6 to 8 hours after the first dose but often do not produce marked therapeutic effect until repeated doses have been given by the latter part of the first 24 hours. Intramuscular cortisone may not exert its full effect for 48 hours after being given, and its effect will last that long after the last dose. It has been my experience, and that of others, that oral cortisone is effective for 8-hour periods, and therefore doses should not be more than 8 hours apart.

At the risk of repeating details already familiar to you, I must emphasize that if used for more than a few days, both cortisone and ACTH may produce hypertension, salt retention and potassium deficiency in children. Proper precautions, including low- or salt-free diets, supplementary potassium, frequent weight and blood pressure determinations, must be observed if the child is to be properly safeguarded. These drugs are frequently life-saving in status asthmaticus and have established themselves for this use. They are equally valuable in making life bearable for chronic, severely asthmatic

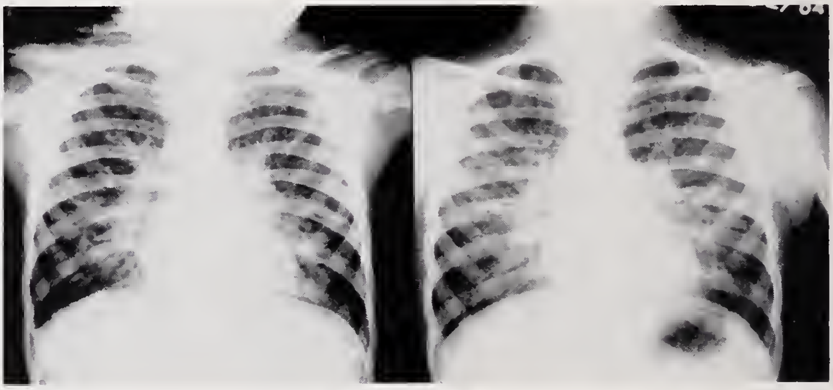

FIG. 5. Case 3 (P. I.). *Cystic fibrosis pancreas* (*mucoviscidosis*). Left, showing extensive infiltration, radiating out from hilar areas, with "snowflake" mottling of peripheral lung field, typical of mucoviscidosis; right, 8 months later, showing extension of infiltration, particularly in midportions of both lungs.

Case 3. P. I., a 4-year-old boy with a history of diarrhea and vomiting, was a feeding problem his first 4 months. He had had frequent respiratory infections; mild wheezing accompanied his "colds." At 3½ years allergy tests reported him positive to several foods. He was placed on an elimination diet, with high fat to encourage weight gain. There was recurrence of the diarrhea. He developed acute pneumonia 4 months later with persistent cough, wheezing, and dyspnea. Following this infection, clubbing of fingers was first noted. He was referred at 4 years of age for study to establish treatment of either allergy or fibrocystic disease. Sputum culture showed Pseudomonas. The diagnosis was advanced cystic fibrosis of the pancreas. An X-ray film of the chest revealed extensive infiltration, radiating out from hilar areas, with "snowflake" mottling of the peripheral lung field, typical of mucoviscidosis; 8 months later there was extensive infiltration, particularly in the midportion of both lungs (figure 5).

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children and are useful in producing remissions during which a diagnostic and therapeutic regimen can be started. The great difficulty in stopping them in chronic asthmatics is beginning to grow more and more impressive as the drugs are more widely used. Many of us are finding children in whom we expected to use cortisone, for example, for a couple of weeks, and who are still requiring it, or at least receiving it, months later, in some instances without having had a preliminary tuberculin test and other studies which did not seem imperative for short-term therapy. When children have had cortisone for a long period, the tapering off process must be very gradual; at times no more than 2.5 mg. decreases every 5 to 7 days can be tolerated.

Although the indications and dosage schedules vary with different physicians, there seems to be general agreement that ACTH and cortisone do not cure allergy and that they should be used in carefully selected cases.

The use of antibiotics in allergic children is another controversial subject. Studies on the incidence of allergy to these drugs indicate that allergic people have a higher rate of sensitization than do nonallergic persons. Practically all of the severe anaphylactic reactions have occurred in allergic individuals. For these reasons one should carefully consider the real need for antibiotics before prescribing them in allergic children, and he should certainly inquire carefully for any reaction to previous courses of the drug. Skin-testing to the antibiotics has not proven sufficiently reliable to detect all possible reactors; and conversely, persons with positive skin tests to penicillin are known to have tolerated it subsequently without any ill effects.

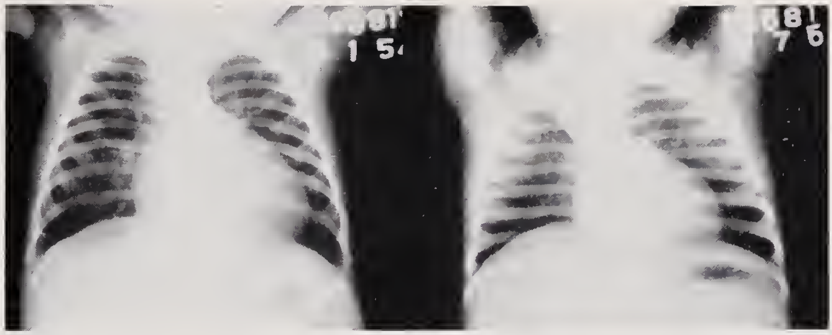

FIG. 6. Case 4 (D. G.). *Atelectasis, questionable milk allergy.* Left, showing no abnormality except slight elevation of right interlobar fissure and questionable increase in markings in left upper lobe, when physical signs were at maximum; right, 6 days later when chest was entirely clear on examination and patient asymptomatic, showing atelectasis of right upper lobe.

Case 4. D. G., a 6-month-old girl, had excessive tracheal mucus, cough, vomiting, and severe diarrhea beginning at 2 weeks of age after weaning from breast to evaporated milk. Frequent formula changes resulted in a recurrence of symptoms on various types of milk formula. She was admitted for study with anasarca, dyspnea, cough, retraction of suprasternal notch, scattered rhonchi, and questionable increase in breath sounds over the left upper lobe. An X-ray film showed no abnormality except a slight infiltration of the left upper lobe, when physical signs were at the maximum. Six days later the chest was entirely clear on examination and the patient asymptomatic. An X-ray film of the chest showed atelectasis of the right upper lobe (figure 6). This patient illustrates the difficulty in accurately placing lesions by physical signs in infants.

We also know that drug-resistant strains and an undesirable flora of gram-negative organisms and fungi often follow the use of antibiotics.

On the other hand, every pediatrician and physician who treats children knows that certain allergic children invariably develop severe, even alarming allergic reactions, especially asthma, whenever they contract a respiratory infection. They have learned that these children do better when given antibiotics as early as possible after the onset of an infection. How can one reconcile these opposing points of view? If there has been no improvement after 12 to 18 hours of purely anti-allergic measures, I see no solution at present except to continue to treat this type of a child with antibiotics. The child

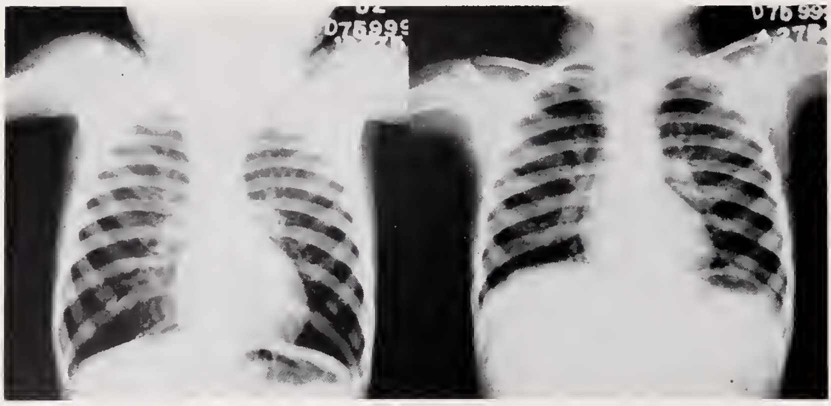

FIG. 7. Case 5 (K. H.). *Asthma, emphysema.* Left, showing increased hilar markings and marked emphysema; right, 6 months later, showing less emphysema, increased hilar markings persisting.

Case 5. K. H., a 2-year-old girl, developed dyspnea, cough, continous wheezing, and cyanosis while having "flu" 1 year ago. Cultures, tuberculin, histoplasmin, and blastomycin, were negative. Allergy tests were equivocal to positive to practically all common allergens. There was remission for 1 week while in the hospital on a milk-free diet; the addition of beef to her diet was followed by asthma and pneumonitis while hospitalized. She received symptomatic relief with ACTH and antibiotics. Asthma recurred at her home on a dairy farm in spite of diet, inhalant precautions, and desensitization. Remission was obtained with cortisone, from which she developed Cushing's syndrome. Direct and indirect skin tests showed repeated, equivocal reactions to most of the common allergens. The child can be kept asthma-free only while on cortisone or hydrocortisone, which had been used for 11 months. A diagnosis of chronic asthma was made, either lung damage type secondary to infection (figure 7), or to multiple allergens. This case illustrates the necessity for constant supervision and repeated re-evaluation.

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must receive adequate doses for an adequate length of time and not 1 or 2 days of therapy, stopped at the first sign of improvement. A program of daily prophylactic doses of an antibiotic such as Penicillin-Pyribenzamine may be indicated in certain children.

In most children the specific allergens which cause trouble are the things which are ever present in daily life. Their avoidance requires a complete understanding of the problem by both parents and patient. The most important part of a pediatric or of any allergy program is the rapport between doctor, parents, and patient. This invaluable asset is in the hands of every physician who has the primary care of the child. A consulting allergist can never hope to attain an equal degree of confidence. He can never expect to recognize nor deal with the emotional problems which are an integral part of allergic problems as effectively and easily as can be done by the personal physician. If more doctors would proceed with self-confidence to start an allergy program by the clinical trial of a few simple dietary or environmental changes, many children who have a mild allergy would be quite well controlled, and many others would be definitely improved. By decreasing the allergic load on a child this preventive approach might also forestall the development of the more serious forms of allergic disease.

I have outlined some of the more pressing problems in pediatric allergy and have indicated by both comment and omission many areas in which more knowledge is needed. I hope that enough landmarks and guides have been apparent so that some practical, tangible ideas have emerged as well.

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TREATMENT OF FRACTURE OF THE HIP WITH PROSTHESIS

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THE TREATMENT of fracture of the femoral neck has continued to present unsolved problems. Current methods with internal fixation alone or combined with osteotomy or bone graft have not proved to be adequate. The prognosis is still uncertain, since nonunion, aseptic necrosis, and arthritis occur in a high percentage of cases. Following the recent successful use of prosthesis in cases of nonunion and arthritis of the hip, increasing interest has developed in prosthetic replacement for the fresh fracture of the femoral neck. Results to date have shown promise, and further understanding of the indications and proper use of the hip prosthesis will undoubtedly contribute to the treatment of this difficult fracture.

An analysis is presented of a series of fresh subcapital fractures of the hip treated with prosthetic replacement of the femoral head.

Analysis of Cases

Between March 1951 and December 1954 29 fresh femoral neck fractures were treated with prosthesis. All of these fractures were of the displaced subcapital type. Impacted neck fractures, displaced fractures in the younger age group, and intertrochanteric fractures were not treated by this method. There were 20 females and 9 males, a ratio which corresponds with the prevalence of hip fractures in females. The age varied between 55 and 89 years, with an average age of 76.3 years. This series of 29 fresh fractures represents a portion of the entire series of 86 hip prosthesis procedures in 76 patients (10 bilateral cases) performed for various indications since May 1948.

Technic

The operation was performed as soon as possible after the fracture was incurred and invariably within the first 48 hours. The first 7 patients were operated on with the Jaenichen-Collison steel prosthesis. Thereafter the F. M. Thompson vitallium intramedullary prosthesis was used exclusively. The anterior incision was first used, but recently the lateral Watson-Jones type of incision has been adopted. The regular operating table is used, with the affected hip in a semilateral position. The joint is approached between the tensor fasciae latae anteriorly and the gluteal muscles posteriorly without severing any attachment, and the capsule is opened through a cruciate incision. After the femoral head is engaged with a corkscrew device, the ligamentum teres is cut with a curved knife and the head extracted. The acetabulum is not reamed or altered.

The limb is held in full external rotation while the medulla is prepared with a rasp and the prosthesis is inserted. The proper direction of the prosthesis is very important for normal movement and stability of the hip postoperatively. The intramedullary stem is inserted with the neck of the prosthesis rotated inward 90 degrees in relation to the patella, special care being taken to prevent protrusion of the stem through the femoral cortex. The underlying bone is carefully contoured with an osteotome or small saw and the prosthesis is firmly impacted. Impaction of the device and reduction of the hip must be performed with the utmost care so that fracture of the femur does not occur. If normal length is obtained, reduction is performed with moderate force and the hip is stable. If the femoral neck is too long, reduction is more difficult or impossible, whereas, if too much bone is removed, reduction is very easy and the hip is unstable.

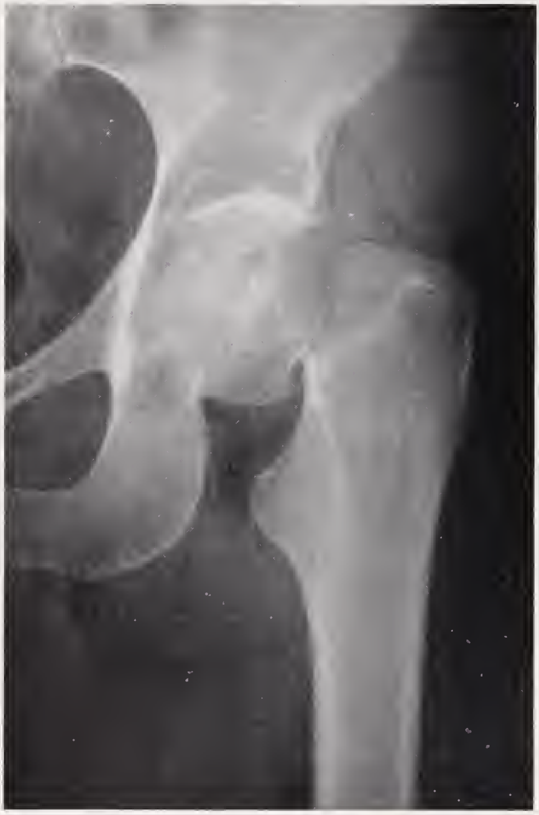

Fig. 1. Fracture of neck of femur with displacement. The femoral head was replaced with a prosthesis the day after injury.

The capsule and other layers are closed without tension, the wound is covered with a simple dressing, and no postoperative immobilization or traction is required. The average operating time is about 1 hour with the present technic, and minimal bleeding is encountered. After surgery the patient is turned frequently on the normal side and is permitted out of bed within 24 hours. It is our practice to start very early full weight-bearing. Several patients have walked a few steps the day of operation, and a number have left the hospital within 2 weeks of injury without using cane or crutches.

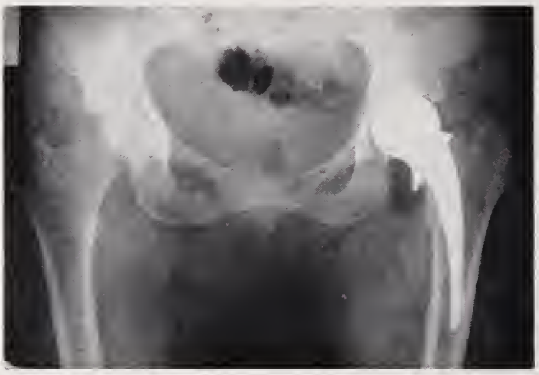

Fig. 2. Appearance after 6 months of full weight-bearing. No apparent limp. Note symmetry of hips. New bone is forming a support below the tip of the prosthesis.

Complications

There has been no immediate operative death or wound infection in this series. In no case has a fracture of the bone or breakage of the prosthesis occurred. One patient died in the hospital on the thirteenth postoperative day after having been out of bed daily following operation. Autopsy revealed multiple pulmonary emboli. Another patient who developed a small pulmonary infarct on the second postoperative day was treated with anticoagulants and made a good recovery. One patient with residuals of hemiplegia had an excellent initial result, but the hip gradually dislocated and the operation was a failure. Another patient has had moderate persistent pain with slight instability of the prosthesis in the femur due to the disproportion between the very large bone diameter and the size of the prosthesis. He has continued to use cane or crutches.

The prosthesis has been well tolerated in all cases and there has been no protrusion or deepening of the acetabulum. Occasionally slight shortening cannot be avoided because of the location of the fracture. In no case has the shortening of the limb exceeded one-half inch, and rarely did such shortening occur. Several patients use a cane in spite of the fact that they can walk very well without any assistance. The use of a cane is often advised in the elderly patient, since it offers reassurance and decreases the fear of falling again.

RESULTS

The 29 patients in this group have been followed from 1 to 45 months (as of January 1, 1955). Except for the 1 hospital death, the case of gradual dislocation, and the case of unstable prosthesis described above, all the others attained an excellent result with full weight-bearing, good muscle power, excellent range of motion, and minimal pain. Figures 1 and 2 show the preoperative and late roentgenographic appearance in a patient.

Some of the patients were poor operative risks, and the normal life expectancy was short at the advanced age represented by this group. Of the 28 patients discharged from the hospital, 7, or 25 per cent, have since died. Except for 1 case of probable pulmonary embolism, the cause of death was not related to the fracture or operation. All these patients had resumed full weight-bearing and their usual activity. They survived an average of 13.7 months after injury, and the average age at death was 83 years.

CONCLUSIONS

The treatment of the fresh subcapital type of fracture of the hip with an intramedullary prosthesis is justifiable in the elderly patient. The operative dangers are comparable to the usual methods of hip nailing. Usually the patient may look forward to early resumption of weight-bearing and normal activity after this method of treatment.

ASPHYXIA FOLLOWING CHEST INJURY

Its Recognition and Treatment by Tracheotomy

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A RECENT experience in the management of a case of asphyxia following combined chest and head injuries leads me to believe that the attention of the medical profession should be focused for a moment upon this problem. Trauma has become the third leading cause of death in this country, and cases similar to the one cited here are now commonplace. "Traumatic wet lung" has become a clinical entity. It is the sequel of any severe chest injury but is probably being encountered most often as the result of the so-called "steering-wheel injury." When this injury is not fatal at the outset, its true gravity may be masked by a deceptively reassuring early clinical appearance of the patient. Delayed fatalities can and do eventuate, the mode of death being either unrecognized or inadequately treated asphyxia, developing as more and more pulmonary alveoli become mechanically obstructed by increasing wetness of the lung or lungs. Anoxemia, hypercapnia, respiratory acidosis, and derangements in serum potassium, sodium, and chloride concentrations all contribute to the total disturbance. For descriptive purposes, then, asphyxia is the best term, and I deliberately reject any lesser one, such as "anoxia" or "hypoxia," as inadequate. Lastly, two realizations are of paramount importance and should be stressed: Severe asphyxia may exist without cyanosis and may go unrecognized; tracheotomy is of immeasurable value in the management of severe chest injuries and traumatic asphyxia.

Report of Case

M. C., a 34-year-old white, male, construction worker in vigorous health had been struck by a falling tree on the morning of August 30, 1954. He had been admitted to Casualty Hospital, where he had exhibited semicoma, a severe right occipital scalp laceration, comminuted fracture of the right scapula, undisplaced fracture of the transverse process of the seventh right cervical vertebra, and simple fractures of 6 or more ribs of the right side, in their posterior segments. The original injury had produced immediate loss of consciousness, and semicoma had continued during his early period of hospitalization. By September 1 his condition had worsened alarmingly. His color was now a gray pallor, his expression anxious and his sensorium clouded, and he was ceaselessly struggling to a sitting position and making an effort to get out of bed over the side-rails which had been placed to confine him. A portable chest roentgenogram now revealed almost complete atelectasis of the right lung. I was consulted and recommended tracheotomy, a proposal that was met with skepticism and which was accepted only after a neurosurgical consultant concurred with this viewpoint. After preliminary atropinization and cocainization of the larynx and trachea a no. 8 tracheotomy tube was placed into the low trachea through a transverse incision. Copious, viscid secretions were encountered in the tracheobronchial lumina. Following the aspiration of secretions at frequent short intervals, ventilation was much improved. Respirations became slower and deeper, the color became normal, and the agitated restlessness disappeared. Within 36 hours the sensorium cleared completely. It was the opinion of all in attendance that the tracheotomy had been a life-saving procedure. The patient continued to do well after he had been tided over his period of respiratory emergency.

Recognition of Asphyxia

For the production of cyanosis there must be 5 Gm. per cent of reduced hemoglobin in the blood (Lundsgaard[1]). Thus, severe degrees of anoxemia may exist in the absence of cyanosis. In an anemic individual with 10 Gm. per cent of hemoglobin the visibility of cyanosis requires that 50 per cent of the available hemoglobin be unoxygenated. Comroe and Botelho[2] very conclusively demonstrated that a group of trained observers was incapable of recognizing the presence of mild to moderate arterial anoxemia, with any consistency, when the presence or absence of cyanosis was the only diagnostic criterion used. The accumulation of high carbon dioxide tensions in the blood produces no color change to aid in its recognition, and the condition is established best by combined measurements of carbon dioxide combining power and pH of the blood. Inasmuch as both respiratory acidosis and metabolic alkalosis are productive of high carbon dioxide combining power, the direct pH measurement is necessary when uncertainty exists. The foregoing considerations explain why an individual may succumb to asphyxia and never exhibit more than a "gray pallor" to reflect the fatal chemical changes in the blood stream. The central nervous system manifestations of asphyxia are prominent and are little different from those produced by increased intracranial pressure. One simply sees evidence of widespread dysfunction of neurones without "localizing signs" or "lateralization." In the conscious patient, complaints of "not enough air" and progressive anxiety and agitated restlessness must be taken very seriously, since they usually mean that the central nervous system is beginning to suffer from a combination of anoxemia, hypercapnia, acidosis, hyperpotassemia, hyponatremia, and hypochloremia. In the semicomatose patient restless thrashing about and repeated "raising up in bed" are cardinal signs of asphyxia. Resort to morphine, demerol, barbiturates, paraldehyde, chloral hydrate, or other central nervous system depressant under these circumstances is usually lethal. Immediate steps to correct ventilatory embarrassment are urgently indicated. Providing additional oxygen by nasal catheter falls far short of meeting the therapeutic requirements. Acidosis and increasing serum potassium are not eliminated, and are probably even increased by the necessity of expiring against positive pressure and by the crusting effect of dry oxygen upon mucus.

RATIONALE OF TRACHEOTOMY

When the glottis is obstructed, it is easy to appreciate the need of tracheotomy. The reasons for recommending the procedure in alveolar obstruction are more subtle, but, when examined, are just as compelling. The design of the human respiratory apparatus leaves much to be desired when it becomes necessary to assist mechanically the removal of obstructing fluid from the pulmonary alveoli and bronchioles. Protective reflexes at and above the glottis make passage of a catheter into the trachea, for the purpose of removing accumulating secretions by strong suction, a trial both for the patient and for the person manipulating the catheter. In a struggling, semicomatose patient it may be very difficult to introduce an aspirating catheter into the trachea even with the aid of a direct laryngoscope. Bronchoscopy may be no less difficult. An indwelling endotracheal tube will not be tolerated by the partially asphyxiated patient with a clouded sensorium and cannot safely be left in place the number of days that may be required for the patient's return to full respiratory sufficiency. The body's inability to store oxygen and its inexorable consumption of the gas place the oxygen-supplying system in a position of high priority in the body's economy. It must be appreciated that exhaust of carbon dioxide is equally vital. When retention of this gas reaches the point at which the buffering mechanisms no longer prevent a drop in blood pH, there is a concomitant rise in serum potassium, and cardiac standstill, particularly ventricular fibrillation, has been demonstrated to occur in the human heart. Clearly then, it is an urgent matter to remove offending edema fluid, blood, and mucus from the air passages, as well as to increase immediately the effective ventilation of those alveoli which have remained unblocked. Tracheotomy offers the following vital advantages in accomplishing these therapeutic aims:

1. It provides an avenue for aspiration that is instantly and constantly available, with no

necessity for assistance or coöperation by the patient and with no unusual technical skill required of the operator.

2. It reduces resistance to the flow of air into and out of the trachea by eliminating the glottic chink and the turbulence of the nasopharyngeal air passages. This may be very helpful in overcoming paradoxical motion of a flail chest wall and may eliminate the necessity for skeletal fixation of such a defect.

3. It preserves the cough reflex, even though the glottis is short-circuited, eliminating the "bechic blast." The "tussive squeeze" still operates and delivers secretions to the mainstem bronchi, where they may be aspirated.

4. It helps to drain mediastinal emphysema, hemorrhage, and edema, since the visceral compartment of the neck, opened in performing tracheotomy, is in direct continuity with the mediastinum.

5. Tracheotomy has direct effects tending to improve alveolar ventilation. The "dead space" of the nose, mouth, pharynx, and tracheobronchial tree of an adult is approximately 150 c.c. and is reduced by tracheotomy to about 50 c.c. At the end of each expiration this dead space is occupied by alveolar air, with a carbon dioxide tension approximating 40 mm. Hg. This air is again drawn into the alveoli with the next inspiration. At a respiratory rate of 20 the intact individual rebreathes 20 times 150, or 3,000 c.c. of alveolar air per minute. Tracheotomy reduces rebreathing at the same respiratory rate to 20 times 50, or 1,000 c.c. per minute, an important consideration in the presence of respiratory acidosis. Also, as depth of breathing increases and rate falls following clearing of mechanical obstruction in the tracheobronchial tree, the efficiency of alveolar ventilation is further increased as shown by the following hypothetical figures:

Rate	*Tidal Air*	*Min. Vol.*	*Dead Space Vent.*	*Alveolar Vent.*
			Before	
40	300	12,000	40 × 150 = 6,000 c.c.	6,000 c.c.
			After	
20	500	10,000	20 × 50 = 1,000 c.c.	9,000 c.c.

The alveolar, or effective ventilation is increased by virtue of a larger tidal volume and a halving of the respiratory rate, despite a somewhat smaller minute volume.

Discussion

I have now performed tracheotomy in 8 patients with desperate ventilatory problems, when there was no glottic or supraglottic indication, but rather an indication of accumulating secretions blocking alveolar ventilation. In 3 the indication was produced by crushing chest injury, in 3 by unmanageable secretions following pneumonectomy or lobectomy for tuberculosis, in 1 by coma secondary to brain abscesses, and in 1 by a calcific embolus to the brain during mitral commissurotomy. These were personal cases, and it is my firm impression that resort to tracheotomy was lifesaving in each of them. The patients who were alert enough to appreciate their desperate situation before tracheotomy were extremely grateful for the aid in breathing which the procedure afforded, after repeated nasotracheal catheter aspirations and bronchoscopies had failed to solve their problems. Removal of the tracheal cannula, following the period of respiratory emergency, is always rewarded by prompt closure of the wound. Tracheotomy has become an integral part of the management of bulbospinal poliomyelitis and has been found useful in tetanus. Carter[3] queried a number of prominent thoracic surgeons recently and found surprising enthusiasm for the performance of tracheotomy in the management of crushing chest injuries, particularly those where head injuries coëxisted.

Deaths that occur during tracheotomy will be avoided if the procedure is performed sufficiently early. The deaths that do occur are produced by the severity of the preëxisting asphyxia. There is objective evidence that a marked loss of potassium from myocardial cells occurs at and just following the moment of relief of hypercapnia (Sealy et al[4] and Stewart et al[5]). Cardiac

(*Continued on page 275*)

HISTORICAL DEVELOPMENT OF CARDIOVASCULAR SURGERY

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IN 1867 Fisher[1] reported, as the result of autopsy studies, that 10 per cent of all heart wounds healed safely, yet 16 years later Billroth[2] declared that the surgeon who attempted to suture a wound of the heart would lose the respect of his colleagues. Eventually, however, in 1896 Rehn[3] first successfully sutured a wound of the heart and during the next 10 years collected 124 such cases from the literature.[4]

On May 6, 1907 in a paper before the Philadelphia Academy of Surgery, John C. Munro[5] of Boston proposed the ligation of the patent ductus based on observations made dissecting cadavers of newborn infants and subsequently published his observations and suggestion. Doyen,[6] in 1913, attempted a pulmonary valvulotomy on a 20-year-old patient who lived several hours but was proven at necropsy to have a subvalvular stenosis. During the same year Tuffier[7] successfully digitally dilated a stenotic aortic valve by invaginating the anterior flaccid aortic wall, thus avoiding a direct opening into the lumen. The patient was said to have been improved. Later, in 1922, Allen and Graham[8] attempted a valvulotomy without success, using a cardioscope similar to a cystoscope.

In 1923, Cutler, Levine, and Beck[9] performed the first successful mitral valvulotomy on a 12-year-old boy with rheumatic fever who lived another 4½ years and was thought to have been improved. They[10] subsequently reported a total of 7 such cases in 1929, but the other 6 had died soon after operation. In 1925 Souttar[11] entered the left auricle through an incision in the appendage and dilated the mitral valve digitally. He probably actually accomplished a commissurotomy by fracturing the fused anterolateral mitral commissure. The patient survived, although it appears from the case report that no true mitral stenosis was present.[4] The next recorded instance was that of Bailey,[12] in which finger fracture on dilatation commissurotomy was performed on June 12, 1946.

These early efforts were succeeded by a long period of inaction and, in the minds of many, seemed to have proved that direct surgical attack on the diseased valves of the heart was too dangerous to be practical.[4]

On March 16, 1937 Dr. John W. Strieder[13] operated unsuccessfully on a 22-year-old woman with a patent ductus arteriosus and superimposed bacterial endarteritis. Then on August 26, 1938 Gross and Hubbard[14] performed the first successful ligation of a patent ductus arteriosus in a 7½-year-old girl and started the modern era of cardiovascular surgery. Six years later, on October 19, 1944, Crafoord and Nylin[15] of Sweden successfully corrected coarctation of the aorta in a 12-year-old boy. A few months later Gross and Hufnagel[16] performed the same operation on a 4-year-old boy (June 28, 1945). On November 29, 1944 Blalock and Taussig[17] performed their first anastomosis for the tetralogy of Fallot on a 14-month-old child weighing less than 9 pounds.

Gross[18] in 1945 was the first to sever a constricting vascular ring. On September 13, 1946 Potts, Smith, and Gibson[19] performed the first aorto-pulmonary anastomosis with their newly designed clamp on a 21-month-old girl weighing little more than 18 pounds. T. Holmes Sellors,[20] a British surgeon, performed the first successful valvulotomy for pure pulmonary stenosis on

December 4, 1947. A few weeks later, on February 16, 1948 Brock[4] performed a pulmonary valvulotomy on an 18-year-old boy with the tetralogy of Fallot. In this same year, on May 22, 1948, Gross[21] corrected an aortic septal defect for the first time.

Gordon Murray[22] made the first attempts to close auricular septal defects in humans in 1948. During the next few years a variety of indirect technics for accomplishing this were developed and tried by such men as Dodrill, Hufnagel, Bailey, Gross, and others.[23, 24, 25] However, Lewis and Taufic[26] performed the first successful closure of an auricular septal defect in an open heart under direct vision in a bloodless field with the aid of general hypothermia in 1952. Swan and his group[27] adopted and perfected the method and applied it to several patients with considerable success.

On March 9, 1950, Bailey and co-workers[28] attempted surgical relief of aortic stenosis in a 26-year-old woman who did not survive surgery. However, in 1952 Bailey et al[29] reported several cases of patients who survived surgery for the relief of this lesion.

On September 11, 1952, Hufnagel and Harvey[30] first successfully used a prosthetic plastic valve to treat aortic insufficiency, and the patient was considerably improved. Since that time several additional patients have been operated successfully.[31]

Finally, during 1954 Lillehei and associates[32] successfully opened the right ventricle and closed ventricular septal defects in several patients. This was done by utilizing a donor and a pump to produce controlled cross circulation which bypassed the heart and permitted open intracardiac surgery under direct vision. Since then in 1955 they[33] have been able to eliminate the donor and use instead a transfusion of arterial blood.

COMMENT

The spectacular advances in the surgery of cardiovascular defects during recent years have resulted in the widely held opinion that practically all the progress in this field dates from 1938 when Gross first successfully ligated a patent ductus arteriosus. To a considerable degree this opinion is justified, but we must not overlook or underrate the importance and value of the preliminary work of the pioneers of a quarter and even a half century ago.

We can understand the difficulties in the way of these early workers and realize it is no discredit to them that they did not succeed. Since their time the advances in surgical technic, anesthesiology, and pre- and postoperative care, especially in regard to parenteral fluids, oxygen, chemotherapy, hormones, and antibiotics, have made possible many of the procedures they attempted without success. They deserve only the greatest credit and recognition for their courageous efforts.

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(*Continued on page 276*)

A CONSIDERATION OF THE TREATMENT OF MICROBIAL INFECTION OF THE URINARY TRACT*

CHARLES A. W. UHLE, M.D.

Professor of Urology, Graduate School of Medicine, University of Pennsylvania

APPROXIMATELY 20 years ago we stood on the threshold of a new era of treatment of microbial disease. Strides have been so rapid that it is at times difficult to keep abreast of the ever-changing tide. Since I have been invited to discuss the management of infections in the urinary tract, may I ask you to reflect momentarily back to those days when we had no sulfonamides, no antibiotics, and no powerful synthetic bacterial agents to cope with urologic infections? These infections not uncommonly ran a protracted course, morbidity and suffering were often extreme, and surgical complications and fatalities occurred. Convalescence was a memory of treatment with innocuous nonspecific remedies, diets and irrigations. I do not mean that we have sacked all the principles of treatment of 20 years ago, because such items as increased fluid intake and irrigations in selected cases are still necessary adjuncts to a well-balanced régime of therapy. Reference will not be made to tuberculous infections or venereal disease. My remarks will be directed primarily to those acute infections of the kidney and bladder which are the commonest found in clinical practice.

Although two decades ago we lacked the 'hors d'oeuvre' listing of chemotherapeutic agents on the modern scientific 'menu,' we gained in knowledge of the vagaries of action of the bacterial flora that so deigned to invade the urinary tract. Urine is an ideal culture medium and it is at its best when it becomes stagnant. The obstructive uropathy, which connotes impaired urinary drainage, back pressure with the resultant congestion, tissue destruction and impairment of renal function, should be kept in mind by all of us. Obstructions, caused by such entities as aberrant vessels and bands at the ureteropelvic junction with secondary hydronephrosis, and stones, strictures, and prostatic enlargement perpetuate infections despite chemotherapy, and a permanent cure cannot be attained unless the underlying gross morbid cause is first removed. Stones and tumors within the urinary tract, acting as foreign bodies, and unhealed areas following operations such as prostatectomy can produce the same difficulties in one's attempt to eradicate the infection. The same story can be told in the management of renal infections of pregnancy wherein hydronephrosis appears in about 90 to 95 per cent of cases and does not disappear until about 4 to 6 weeks after delivery. In some of these cases catheter drainage of the renal pelvis when acute pyelonephritis is present must often be used in conjunction with chemotherapy. Investigators have called attention to the seriousness of these renal infections, the chronicity and silence of the infection that may last for years after delivery, and the relationship of functional renal impairment and hypertension.

Especially in the older age group one must consider the possibility of diabetes which, in the presence of infections, can upset the mechanism of chemotherapeutic response. Diabetes gives added zest and virulence to the infection and increases the tendency to chronicity. In the presence of a normal anatomic urinary tract, chemotherapeutic control of infection rests upon the clinical control of the diabetic state. This is in contradistinction to the abscessed kidney or the obstructive uropathy with infection in which surgical measures with complimental chemotherapy must be instituted before the diabetes can be brought under control.

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* Delivered at the First Interstate Scientific Assembly of the Medical Society of the District of Columbia and the Medical Society of Virginia in Washington, D. C., November 2, 1954.

The problems of infection in childhood deserve special care and consideration. The female is apparently more susceptible to infection than the male. One may rest on his laurels with the successful treatment of the "one attack" case, but the second and repeated attacks demand further urologic study. In infancy, before permanent damage can accrue from the infection itself or from the many and diverse forms of the obstructive uropathy, is the time to investigate the patient. Lesions may lie dormant for years, terminating in the necessity for more radical surgery which would not have been necessary if they had been found in infancy.

I do not wish to imply that all infections occurring in the urinary tract have a priori a perpetuating lesion within the tract itself. You have all had experience with the rapid response to treatment and the complete cure of patients without further recurrence.

Bear in mind that failure to control infection can be due to the following causes singly or in combination:

1. Intrinsic or extrinsic lesions producing obstruction, stones and tumor, foci of infection in the genital tract.

2. In the absence of definitive bacteriologic identification, the choice of the wrong antimicrobial agent.

3. A resistant strain of organism.

What can we do about the first cause? We have the technical means at our disposal through roentgenologic and instrumental diagnosis to arrive at a conclusion. These modalities, however, are secondary adjuncts to a careful history and complete physical examination. A complete physical examination does not overlook the passage of the index finger through the sphincter ani, an assessment of the genitalia, the prostate, and the digital and speculum intrusion of the female pelvis, with a microscopic study of its secretions.

Secondly, bacteriologic identification by culture with sensitivity tests against the various agents is an ideal not always to be attained if a patient is seen as an emergency in his home. Employ these tests wherever possible but don't fail to make a routine urinalysis, search for bacteria in the centrifuged specimen, and attempt to identify by staining the sediment with the gram stain and with methylene blue. Approximately 80 per cent of renal and bladder infections are due to the colon bacillus. Therefore, penicillin is not a satisfactory over-all genitourinary antibiotic; the sulfonamides remain as an excellent first choice. If you choose to employ an antibiotic, prescribe one with a broad spectrum.

In the coccal infections penicillin is efficacious. In cases of acute perinephritis, acute perinephritic abscess, and acute hematogenous nephritis the coccal infections predominate.

Thirdly, the problem of an increasing number of resistant strains is ever before us. They tax the ingenuity of the therapist. They linger and multiply despite adequate drainage and overwhelming treatment. Certain strains such as the Proteus group, pyocyaneus, Aerobacter aerogenes, and Streptococcus fecalis are inherently resistant, and other more common strains can be made resistant by prolonged treatment in the presence of obstruction.

It is in this group that a combination of the antibiotics or a combination of an antibiotic and a sulfonamide given over a sufficient period of time may play a decisive role. Furadantin, a nitrofuran and a recent addition to our armamentarium, has also been a very effective agent.

Time does not permit consideration of the whys and wherefores of nonspecific pyelonephritis and cystitis, how infection gains entrance to the genitourinary tract, the role of foci of infection, the pathologic progression from acuteness to chronicity, the relationship of chronic pyelonephritis to hypertension, etc. In reading our standard texts one is impressed that there is much theoretic dogma and that much remains to be learned of the physiopathologic mechanism of infection in the human. On the other side of the ledger is the complicated story of the microörganism itself, its life cycle, its adaptation to man, its reaction within the human body to the various agents of microbial therapy pitted against it, its development of resistance, and its response to the synergistic action of a combination of preparations.

All these clinical problems lead to the premise of what one may consider proper and adequate treatment both in children and adults. Excluding the complicated cases with surgical connotations, and narrowing the field to those cases of cystitis and pyleonephritis commonly seen in practice, the chemotherapeutic treatment should be instituted with certain principles in mind:

1. Ascertain if the patient has any sensitivity to either antibiotic or sulfonamide.

2. Dosage does not have to be excessive or overwhelming and should be given at regularly spaced intervals. Oral or parenteral administration is used depending upon the type of agent employed.

3. If satisfactory response is not noted in 48 to 72 hours, the selection of another agent is in order. Any undue evidence of irritation or lack of tolerance signifies switching to another agent.

4. After the temperature has subsided and the urine is clear, cut the dosage in half, space it regularly through daytime intervals, and continue for an additional week in the convalescent period. The additional days of therapy are important because many of the agents are bacteriostatic in action.

5. In clinically virulent cases a combination of therapy can be used.

6. In resistant and recurrent infections therapy in small dosage intermittently or continuously for weeks or months under strict clinical supervision is successful, provided the obstructive uropathy and other factors have been ruled out by complete urologic examination.

SUMMARY

In the management of infections of the urinary tract I have presented the basic principles which should guide one in planning the chemotherapy for the patient. If these are kept in mind there will be fewer antibiotic and sulfonamide cripples. Nothing can be gained by exposing you to a long list of the various confusingly named agents and those mysterious names of the diverse organisms. Suffice it to say that the literature abounds with articles incorporating charts of the specificity of agents against particular strains of bacteria; also, the physician is briefed daily by the receipt of advertisements in the mail which extol the virtues of the various preparations.

To summarize my remarks is to reëmphasize consideration of the urologic tract as a physiologic unit. Chemotherapy for the organisms that invade it should be guided by an appreciation of the pathologic changes that can occur within it.

President's Page

THE ANSWER IS COOPERATION

During the summer months and early fall, thousands of young doctors will begin the practice of medicine. Some will have offices in midtown, some on the fringes of the metropolitan area, and some in small towns. They will "compete" with established physicians. They will bring new ideas and technics of diagnosis and treatment. Their concepts of disease can contribute in an educational way to the older and busier practitioner.

On the other hand, the older practitioner can offer experience and understanding. He can set standards of coöperation and ethical behavior as they apply to the particular community. He can stimulate the interests of the younger man to assist in community health programs and civic activities. These things the younger man will come to appreciate as part of his contribution to medical heritage. In addition the "new" doctor can be made to feel "at home" with his medical colleagues and take part in local medical society activities.

Unreasonableness on the part of the elder physician and intolerance in the younger man are never justified. They do not lead to the building of improved health facilities of the community nor the improvement of the individual care of the ill. Mutual respect and understanding should dominate our relationships.

Preston A. McLendon

Editorials

CARE OF EMOTIONALLY DISTURBED CHILDREN

An unsavory situation has been brought most forcibly to public attention in the past months. The utter inadequacy of resources to deal with the problems of emotionally disturbed children has finally been detailed and emphasized through newspaper reports on Juvenile Court hearings and on the Receiving Home controversy.

Neither of these situations is new. People who have reason to know and care have been aware for years that Judge Cockrill must make many heartbreaking decisions regarding the fate of children from broken and inadequate homes. The Juvenile Court can seldom find a proper place to send emotionally disturbed children for remedial care. It has also been known that the Receiving Home is perforce a dumping ground for the difficult and unwanted, as well as a place where healthier children are lodged for a day or so in emergencies. However, it has taken a real journalistic crusade on the part of our local newspapers to bring these situations into clear, unmistakable focus.

Dr. Robert D. Lincoln, psychiatric consultant to the Welfare Department, has reported that 40 departmental wards now need intensive, residential psychiatric treatment. He also avers that 300 more need regular clinic-type therapy. Furthermore, the trend is upward, and in 10 years, he believes, some 150 children will need fulltime residential treatment.

Welfare Department wards are only a minor part of the District's dilemma. A survey in 1952 found some 2,000 school children in urgent need of psychiatric care and 8,000 more showing definite signs of mental and emotional difficulty. We can add to these figures the uncounted thousands of adults who would benefit from outpatient care. Today, few of them can afford private care, few can obtain clinic aid, and many wind up either in St. Elizabeths or in jail.

Mental ill-health is probably our most costly single health problem. Here in the District many strong and unpleasant facts have been clearly set before the public. The need is immediate. It now remains for District residents, working through both lay and professional organizations, to help give all of our children a fighting chance for a happy and productive life.

One of the organizations which is trying to improve this shameful condition is the D.C. Mental Health Association. Founded in 1953, the Association has been working for better mental health services in the Nation's Capital. With volunteer workers alone the Association has campaigned for more public mental health funds, helped parent and church units organize study groups and educational meetings, worked out pilot seminars for training teachers and police in the handling of mental and emotional problems, and helped keep members and local agencies informed on current developments through its monthly newsletter. It works closely with psychiatrists, pediatricians, psychologists, social workers, educators and other professionals, and with their corresponding Associations.

The D.C. Mental Health Association is currently running a membership drive to broaden its present base in the community. It now has some 500 members and invites all those concerned with the extent and seriousness of our city's mental health problems to join. Physicians

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

who want to further the Association's work for better mental health services may send their $2 membership fee to the Association's office at 2227 M Street, N.W. or call the office for more facts about the Association's program.

G. Howland Shaw
President, District of Columbia Mental Health Association

BETTER EDUCATION IN MEDICAL ETHICS

Every practicing physician should be deeply concerned with the adequacy and quality of the medical ethics and jurisprudence courses taught in medical schools. For, like a human being, the law and social forces are living things and changes are ceaseless. Have our medical schools adapted their courses to the increasing importance of economic, social and legal problems of the doctor? Is it not proper to ask ourselves whether or not some deficiency in our medical ethics and jurisprudence courses may not be a factor in the present malpractice trend?

As recently as 1940 malpractice suits were rare except for cases of flagrant violations of good practice. Recent surveys have disclosed that a substantial percentage of malpractice claims can be credited to the physician's conduct and behavior. Should we not then, in the light of recent experience, reëvaluate the areas of emphasis in the ethical and legal curricula of our medical schools?

I do not mean to imply that medical schools have been irresponsible in conducting their medical ethics and jurisprudence courses. But after thorough study of the current malpractice situation, and after sober reflection on how to correct it, I believe we must start bettering ourselves at the medical school level.

The medical school presents many fundamental advantages where this problem is concerned, and it is here that we should alert the future physician to the hazards that are slowly and certainly encircling him. The student should be prepared not only scientifically but also for the community problems and hazards that he will encounter. It is also here that we can achieve a strong sense of discipline regarding his conduct in private practice.

This conviction was strengthened the other day during a discussion with several physicians regarding the ethical means of giving opinions about other doctors' cases. It was stated that "these matters present themselves frequently to the physician and the means of coping with them . . . along ethical lines . . . were never explained to us in medical school."

It is also a matter of record that interns and residents, by their remarks concerning the private physician's care of a patient, have caused malpractice actions against the doctor. These neophyte physicians are frequently unfamiliar with the social, economic, and emotional background of the patient—all of which are of the utmost concern to the family physician. He recognizes these factors, and such recognition may for good reason delay the carrying out of certain medically desirable procedures. The intern or resident, not having complete responsibility for the patient, without consultation or permission from the doctor and unaware of these restraining elements, asks the patient why certain procedures were not done, or why a certain type of treatment wasn't pursued. Such questioning may provoke thoughts that poor or substandard treatment has been given. For a long time physicians have known that their severest critics have been among the hospital resident staff, and that their most difficult examination to pass was the "Intern and Resident Board."

Such critical conduct on the part of these new physicians is now becoming legally and financially significant. Preventing careless talk, unfounded criticism, and discriminatory remarks, or more positively, promoting good will and a judicious attitude toward your colleagues belongs somewhere in the realm of education. Failure to clarify and explain the interphysician relationship may have brought about the unfounded charge that it is impossible to get one physician to give an honest opinion about another doctor's conduct and treatment of a case.

Although medical education has many problems, it is suggested that possibly this facet of the curriculum could be more impressively attained by audiovisual aids demonstrating to the student what apparently simple things bring about law suits. In the reorientation of this aspect of the curriculum the legal importance of the medical record should be stressed as well as its scientific importance, especially in recording the reasons for a patient's refusal to follow recognized or specific instructions and recommendations. For instance, a doctor should never fail to record a patient's reason for refusing to have an X-ray examination or consultation, or for not following certain procedures to confirm or exclude the presence of any entity or disease. Likewise, the importance of not wandering into the fields of experimental procedures or treatment should be pointed out. There are many other examples which confront the physician in private practice which, if he does not record the reasons for the patient's action, may place him in jeopardy in the future.

In asking our educators to reëvaluate their socioeconomic, ethical and medical jurisprudence courses, the appeal is not for more hours, but rather for reëmphasis and a change to a possibly more effective method of conveying these important thoughts.

Alfred A. J. Den, M.D.
Chairman, Committee on Professional Liability Insurance, The Medical Society of the District of Columbia

COMPETITIVE SPORTS FOR BOYS*

I favor competitive sports for boys just as I favor brakes on all four wheels of an automobile. They are perhaps not absolutely necessary but they help considerably in controlling the energy output. I favor competitive sports for boys while they are learning basic skills—while they are forming their attitudes of fair play. But, I favor sports activities for below the teen-age group which avoid the pressure of championship play and championship games.

Competition among boys is good. It is as natural as 4th of July speeches on the 4th of July; but to see natural and normal competition among boys at an early age turned by enterprising adults from fun into an enterprise for adults is not good. I do not think the boys, when they have grown a little older, favor it. It does not take much looking for these boys to look back a few years and see themselves out of focus and to come to the realization that you can hold on to the applause of a crowd only about as long as it takes the echo to die out.

"Every boy needs energy for going and energy for growing." If he uses all of it for going, he obviously has none left for growing, and yet growing is inevitable—it ought to be the first consideration. The early adolescent period of growth and development is difficult under the best of circumstances. Under circumstances involving the pressure of championship games and tournaments it can be disabling.

So let us take it easy with the below teen-agers and with most of the teen-agers as well. Sports are wonderful. They are moral builders. I personally am indebted to them for what they have done and can do for a school. I want to preserve them and at the same time meet the needs of the boys who participate. Let us, therefore, keep sports to the size of their respective type britches.

Charles E. Bish, D.Ed.
Principal, McKinley High School

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* This statement from Dr. Bish summarizes the views he expressed during a Panel Discussion on Competitive Sports before the Medical Society of the District of Columbia, January 12, 1955.

SIR ALEXANDER FLEMING

If one were to single out the scientist in this century whose work has had the deepest impact on the practice of medicine, the name of Sir Alexander Fleming is in the vanguard of a highly distinguished group. The substance he discovered has been in general use for scarcely more than a decade, and yet it is clear that penicillin and the many antibiotics that followed it have drastically altered our concepts of the treatment of infectious diseases and placed at our disposal weapons of astonishing power.

Fleming was born in southwestern Scotland in 1881, one of 7 children of an Ayrshire farmer. At the age of 14 he joined an older brother in London, and after a few years with a shipping firm he decided to study medicine. At St. Mary's Hospital Medical School he was awarded the Senior Entrance Scholarship in Natural Science, and over the next several years he managed to win many prizes and scholarships.

After completing his medical training Fleming entered the laboratory of Almroth Wright, who had come to St. Mary's in 1902, renowned for his work in using heat-killed cultures in the preparation of typhoid vaccine. During the first World War Wright's group investigated new methods of treating war wounds, and it was in this period that Fleming developed his interest in antiseptics.

During the early 1920's Fleming was absorbed with the study of lysozyme, which he described as "a substance present in the tissues and secretions of the body, which is capable of rapidly dissolving certain bacteria." This was the beginning of a life-long interest in the phenomenon of natural immunity. His faith in this process he has phrased in these terms:

"I am certain that the potency of the natural mechanism whereby we are protected against the invasion of microbes is not generally appreciated. Possibly because we, in the practice of our profession, are constantly dealing with people who are infected, we lose sight of the vast bulk of the population who, in spite of the artificial conditions in which they live, escape serious infection. The resistance against infection must be very perfect when we consider that our mouths, throats, and alimentary tracts harbor potentially pathogenic microbes, and that there is only one layer of epithelial cells between the contents of the intestine, including *Bacillus coli*, streptococci and gas-gangrene bacilli, and the deeper tissues in which, given favorable conditions, these bacteria can flourish and give rise to deadly infections."

Fleming frequently stated that his interest in antiseptics and his work with the natural antiseptic, lysozyme, had much to do with the discovery of penicillin started in 1928 from his keen conception concerning a contaminated plate on which he was attempting to culture staphylococci. "But for that previous experience," he has written, "it is likely that I would have thrown the plate away as many bacteriologists must have done before. . . . Instead of casting out the contaminated culture with appropriate language, I made some investigations."

The rest of the story is familiar. A decade passed before Fleming's fortuitous discovery was taken up and exhaustively explored. Fleming was not a chemist, and he had no one on his staff equipped to deal with the enormously complex problems of concentrating and purifying penicillin. In addition, medical research at that time was inadequately supported and the country was preoccupied with problems of depression and unemployment.

The successful application of penicillin to the treatment of infections initiated a wave of research the momentum of which is still felt today. The new therapy together with many new antibiotics that have since been added has literally revolutionized the practice of medicine.

The world-wide beneficence of Sir Alexander Fleming's contribution to the protection of health and to the treatment of diseases leaves all mankind forever indebted to him.

C. J. VAN SLYKE, M.D.
Associate Director, National Institutes of Health, Public Health Service, United States Department of Health, Education, and Welfare

In and Out of Focus

BY THE OBSERVER

". . . Practically Nil. . ." It was time that someone spoke up about the sad state of the Civil Defense medical program, for, as Senator Margaret Chase Smith testified before the Senate Armed Services Subcommittee now investigating the Civil Defense organization, its efforts have amounted to no more than "talking and studying."

"Anytime I hear anybody talking about Civil Defense," said Senator Smith, "I go home horrified thinking what we would do if there were really an emergency."

Dr. Paul R. Hawley, Director of the American College of Surgeons, was even more outspoken in his criticism. According to *The Washington Post and Times Herald*, Dr. Hawley said American physicians and hospitals have been so little briefed by the CD Administration that it would be a matter of God help the United States should disaster hit. Medical organization and planning are "practically nil." CD is limited to a few scattered meetings and technical papers.

The story of the District's CD medical program is one of frustration and failure. In 1947, the Medical Society's Committee on Emergency Medical Service organized the physicians in the area to cope with disaster in the event of an enemy attack. When in 1950 the District Government took over the CD medical program, the Committee volunteered its coöperation. However, the program has lain dormant for so long that the Committee has reconciled itself to inactivity until Congress and the people decide they want an effective CD plan.

Many months have passed since the Committee has seen any necessity for a meeting, although individual members have expressed concern as to what would happen if the newest type H-bomb were dropped on Washington and the city was not completely destroyed. Without an organized medical service, they visualize tragic consequences beyond description.

It was this and the tense international situation which prompted the Society's Executive Board to authorize communications to District Commissioner Renah F. Camalier and Major Omer W. Clark, Chairman of the Public Health Advisory Council, pointing out the seriousness of the situation. In the letter which the Secretary of the Society addressed to Commissioner Camalier, "deep concern" was expressed over the "total ineffectiveness of CD medical plans for the District of Columbia; that these are paper plans only, no nearer realization than when planning was first undertaken; that these paper plans cannot be implemented unless adequate appropriations are made available for materials, personnel, and training facilities; and that in view of the foregoing the public should know that under these circumstances those charged with the responsibility for medical care could not cope with the casualties which would inevitably follow an enemy attack."

There had been no reply to these communications, which were dated December 15, 1954, when these lines were written in the latter part of April. This is in no sense a criticism of the officials to whom the letters were addressed because they undoubtedly had nothing to report. After all, the Commissioners and other District officials can do nothing without the approval and financial backing of the Congress.

On February 8, 1955 a bill was introduced in the Senate authorizing the establishment of an Office of Civil Defense in the District. Commissioner Samuel Spencer and Colonel John E. Fondahl, Director of the District Civil Defense organization, the latter a tireless worker for his organization, strongly urged the passage of a bill which would grant the Commissioners the power necessary to get CD under way. How this legislation will fare is not certain; time alone will tell.

Perhaps the Society should not concern itself further about the CD medical program until Congress acts. It has said all it has to say on the subject. Nevertheless, the total lack of any organized medical services in the face of possible catastrophe cannot be lightly thrust aside. It is, therefore, gratifying when such influential figures as Senator Smith and Dr. Hawley focus public attention on the serious threat to the country's security inherent in the neglect of the Civil Defense program.

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Program Problems On an evening in mid-April of this year, five members of the Program Committee for the coming year gathered in a hotel room to discuss their plans. Dr. Ralph M. Caulk, Chairman of the Committee, is a physician of long experience in program planning. Why, he inquired of the Committee, had it been so difficult to obtain attendance at monthly meetings? Was there a need or demand for these meetings? If so, what type of program should be offered?

For the most of the 4-hour session, he probed the minds of his Committee. Each was asked for his suggestions. The first voiced the opinion the program should be devoted to scientific subjects. He had heard criticism of the nonmedical nature of the Society's programs and was inclined to agree with this view.

Others present reminded him of the uniqueness of the Society's organization; that it is a state medical society with many of the characteristics of a large county medical organization. State societies are usually content to limit their scientific programs to an annual convention and brief refresher courses or seminars held in different parts of the state. Although restricted to a comparatively small area, the District Society had followed this pattern through its ANNUAL SCIENTIFIC ASSEMBLY and the Midwinter Seminar.

But there, he was informed, is where the similarity of the local Society's program to that of other state medical societies ends. The Society had for the most part of 35 years presented weekly scientific programs in its building. Not until World War II were they reduced to 2 a month because so many physicians had entered the armed forces. Following the War, poor attendance finally forced abandonment of semimonthly meetings, it being decided that the ASSEMBLY and the Seminar would be sufficient.

What had happened? Many medical organizations and institutions which had come into existence during and after the War were offering excellent scientific fare for practicing physicians. Then, too, there had been an increase in the number of smaller medical societies which placed emphasis on their social activities as well as their scientific programs. It had, therefore, seemed best to officers of the Society that the organization confine its role to that of a state medical society.

This was the state of affairs when Dr. Herbert P. Ramsey, last year's President, urged the Executive Board to approve a plan whereby monthly meetings would be resumed. It was his view that the Society building would not continue to be the hub of medical activity in the District unless it was used more frequently by members and their families. The Program Committee that year thereupon decided to present programs of a quasi-medical nature to which both husbands and wives would be invited. They were very successful and the attendance generally was excellent.

This year this type of program was continued. Unfortunately, the response has been disappointing. Not all programs have lived up to expectations. Some of them, however, deserved far better support than they received.

In the discussion which followed this review the Committee finally agreed that the Society's monthly programs for next year might serve a useful purpose in improving public relations. It was proposed that representatives of civic and community organizations be invited to consider community health problems with the Society membership in a series of programs.

The Committee was favorably inclined to this proposal but decided to think it over. If it concludes that this plan deserves a trial, it will announce its plans in detail by late summer.

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He Wouldn't Be Denied

Of the hundreds of physicians who visit the Medical Society building each year, it is safe to say that many give little thought to how the structure came to be built, who was largely responsible, and how the money was raised.

Some weeks ago, in rummaging through the office safe for the purpose of gathering together documents to be placed in storage, your Observer came across an envelope labeled, "Slogans, etc. used in promoting the Building Project." The contents consisted largely of slips of paper on which slogans had been written, some of which had been used on posters for a drive for funds. The handwriting on the slips was unmistakable. It was that of Dr. Edward Young Davidson, who led a tireless fight for the building which the Medical Society now occupies.

His was no perfunctory effort, for he dedicated himself to the building project with a zeal which is unique in the Society's history. Despite protestations of those who became weary of his constant pleas for funds, he gave them no respite until the job was done. One can picture Dr. Davidson hammering home his slogans at every meeting of the Medical Society. There was no escape from the constant reminder that members were obligated to contribute something, the more generous the contribution the better. Here are some samples of Dr. Davidson's slogans:

Don't make excuses, make good.
Defeat is only for those who accept it.
The home needs you, and you need the home.
Home is where your heart is.
Sure, we will finish the job—now.
Life is action and not to do, death.
Remember the Building Fund.

A leaflet widely distributed among the doctors at this time was "A Study in Self-Classification." What the study consisted of was this:

WILL I BE

One of 20 to give	$1,000 each
One of 30 to give	500 each
One of 40 to give	250 each
One of 50 to give	200 each
One of 75 to give	150 each
or	
One of 100 to give	100 each

TO BUILD OUR HOME?

A memorandum in the envelope contained the following information:

> "149 members of the Society have subscribed $16,080 to the Building Fund, how much will 565 members subscribe? . . . Less than one year ago, the question was asked, 'Should we not now erect in Washington, the Capital of this great Republic, a building dedicated to American medicine?' Today we answer that with an unreserved, a consecrated devotion to our Society that we shall erect the building. With unflagging purpose and unfailing interest, the Building Committee is prosecuting the high mission entrusted to it by the Society."

Evidently Dr. Davidson's persistence on all and every occasion to obtain subscriptions for his cherished project reached a point where those close to him begged him to let up a little. For in the envelope is a copy of the remarks by Dr. Davidson at a Medical Society Smoker which was held at the Wardman Park Hotel, April 30, 1919. Dr. Davidson's response to the request that he refrain from seeking contributions was this:

> "I find myself in an anomalous position. The Smoker Committee has asked me to say a word about the home we are to build, and at the same time has forbidden me to ask for subscriptions to build it. I have acquired the habit of asking for subscriptions; and it is hard to break a well-entrenched habit. I shall, of course, comply with the Smoker Committee's request, but I believe that if we were to start the ball rolling we could raise the necessary $75,000."

There is no stopping a man of this kind and it was inevitable that Dr. Davidson's dream should come true. To him more than to anyone else is due the credit for a building which, despite the passing of more than three decades, is surprisingly modern in appearance and, as he said in one of his slogans, possesses a "quiet strength and dignity."

"Dave," as his friends know him, still has his office and home on East Capitol Street, where he has practiced for more than 60 years. He is surprisingly vigorous, but on less frequent occasions than in former days visits the building, and when he does, he expresses pride and pleasure in the "home" of which he is too modest to admit that he was the "architect."

★

No Mole Hill Smarting under the criticism that accident and health insurance companies resort to "fine print" to negate some of the large-type provisions in their policies, Mr. J. F. Follmann, Jr., General Manager of the Bureau of Personal Accident and Health Underwriters, recently struck back with the assertion that "it is untrue."

Mr. Follmann's particular ire is directed against publications that perpetuate "this unfounded charge." Mentioned is a national magazine which carried an article in which the author states, "Amos and Andy described the operation [of accident and health insurance companies] neatly: 'The big print gives it to you and the little print takes it away.'" Another magazine ran an article restating the same criticism in these words, "Frequently their policies have hidden jokers or misleading promises or they take away in the small type what they give you in large type."

As a result, this quip has been repeated in numerous other publications. Pamphlets containing a variation of it have, according to Mr. Follmann, been printed by medical societies for the avowed purpose of aiding individuals in purchasing insurance. To illustrate the wide acceptance of this statement, he said, it was recently repeated before a Congressional committee in connection with hearings on the Administration's reinsurance legislation.

Mr. Follmann submits the following as evidence that there is no basis for the "fine print" criticism:

> "Since 1912 it has been a statutory requirement in the vast majority of the states that the size of type in accident and health policies shall not be less than ten point. More recently the Uniform Individual Accident and Sickness Policy Provisions Law recommended by the National Association of Insurance Commissioners in 1950, and since enacted in the vast majority of the states, requires that policies of accident and health insurance be 'plainly printed in light-faced type the size of which shall be uniform and not less than 10 point.' The law further requires that 'the style, arrangement and over-all appearance of the policy give no undue prominence to any portion of the text.' Hence a policy which 'gives it to you in the big print and takes it away from you in the little print' is clearly prohibited by law.
>
> "Now how big is '10-point type' and what does this legal requirement mean, comparatively, to the policyholder? The size of type increases as its numerical indicator increases. Hence 10-point type is larger than 5-point type. A daily newspaper is customarily printed in 7- or 8-point type. The telephone directory is printed in 6-point type. You are now reading 9-point type. Leases and mortgages generally range from 4- to 10-point type. The U. S. Income Tax Form 1040 and Instructions are printed in 6-, 8- and 10-point type. The U. S. Induction Order (Draft Notice) is similarly printed. A U. S. Government Domestic Money Order is printed in 6 point on the face and 8 point on the back. The Congressional Record is printed in 7½-point type with extracts being printed in 6½-point type. The two magazines previously

> referred to as having printed this criticism are printed in 10- and 8-point type respectively. It is clear, then, that the type size used in accident and health policies is as large or larger than the size of type used in printed matter which the public reads daily, which the public is required by law to read, and by the very journals printing the criticism."

Mr. Follmann admits that there are mildly entertaining aspects of this situation. He nevertheless insists he is not making a mountain out of a mole hill, for "accident and health insurance is no mole hill." It involves 100,000 policyholders who invest 2½ billion dollars in premiums annually, an increase of 20 per cent during the last year and over 500 per cent in the past decade. This money is in turn invested in American enterprise, further developing and expanding the country's economy.

Not to be overlooked, he says, is the sociopolitical aspect of the matter. Loss of income due to sickness and the costs of medical treatment are a heavy drain on thousands of family budgets. Public officials are conscious of this problem as shown by the President's State of the Union messages in 1954 and 1955, the Administration-sponsored health legislation, including the previously mentioned Reinsurance Bill, amendments to the Hill-Burton Act, and the new Internal Revenue Code.

What have these things to do with "fine print"? A great deal, Mr. Follmann asserts, for the harm such statements may do in undermining public confidence in health and accident insurance companies. He praises the free press of America as "a great and fine institution" but deplores its "disregard for the facts or where distortion occurs through half truths or innuendo."

He concludes on an optimistic, if somewhat contradictory note. While adverse publicity has had a "noticeable effect on public officials and public opinion," only in isolated instances have insurance companies suffered financially because of it. Cancellations by policyholders, it appears, have been rare, and there has been no noticeable sales resistance. On the contrary, satisfactory growth is reported by all reputable companies throughout the country.

All of which makes one wonder whether "fine print" has been so damaging after all.

★

Death in Medical Partnerships As many doctors can testify, death has often pointed up serious defects in medical partnership arrangements. These, they have discovered, are most frequently due to failure to put an agreement in writing, or, if this has been done, failure to incorporate provisions which will adequately protect all individuals concerned.

A typical example is the following: An established surgeon employed a young surgeon as an assistant with the understanding that eventually he would become a partner on a 50/50 basis. The time finally came when it was understood that the agreement would become effective. Because it was inconvenient at that time, a formal document was not drawn. However, assurance was given the young surgeon that his interests would be protected.

Then, the unexpected happened—the older surgeon, who had been in the best of health, suddenly died. The young surgeon realized at once that there might be complications where his agreement was concerned. He came to see your Observer, understandably much perturbed. It was suggested to him that as soon as he could he should discuss his agreement with the widow of the deceased surgeon. When he spoke to her, she said she knew nothing about the agreement; that, while she was sympathetic, as far as she was concerned, it did not exist.

There followed prolonged and difficult negotiations. Finally, the surgeon purchased the practice at a far greater cost than if there had been a written agreement. He learned a lesson that he will not forget for the rest of his life: that no matter how pleasant the relationship between physicians who enter into a partnership or how dependable they seem to be, death can undo it all in an instant.

Some weeks ago a pamphlet came to your Observer's attention entitled, "Prescription for Medical Partnerships." It was written by Dr. Charles Maertz, Medical Director of the Union Central Life Insurance Company, and contains some common-sense advice on this subject worthy of repetition. Every partnership, Dr. Maertz writes, possesses tangible and intangible assets. The first consist of such items as equipment, supplies, and accounts receivable; the second are of a less definable, but nevertheless determinable, value. But let Dr. Maertz explain:

> "Over a period of years, the partnership may build up a high reputation for skill and competence. Although it is impossible to assign a dollar and cents value to this good will, its benefits are enjoyed by each partner and have a direct bearing on his earnings.
>
> "The greatest single intangible asset could be the *financial potential* to be realized from a constantly growing clientele of patients."

Determining the value of a partnership's assets becomes especially important when a partner dies.

> "The partnership is dissolved, at least as far as his interest is concerned. The doctor's income stops. All that is left to the widow or heirs is his share of the firm's tangible assets.
>
> "Yet, what is the value of this property? The doctor doesn't leave the usual tangibles, such as raw material inventories, real estate, or salable good will. While his patient records are of considerable worth to anyone assuming his practice, their actual monetary value is difficult to define and their 'sale' extremely uncertain. Accounts receivable are subject to shrinkage and uncertainties of collection. There may be little cash on hand. Supplies are generally of negligible value.
>
> "The organization's equipment can be quite expensive. Nevertheless, it is worth its full value *only* to the group, suffering a loss in value in any forced sale. Finding a buyer for used medical equipment is time-consuming and difficult. Moreover, a bid by an outsider is bound to offer only a fraction of the cost of replacing that equipment.
>
> "Even in a thriving group practice, assuming that an accurate appraisal can be made, a deceased partner's share of the tangible assets may amount to *less than his earnings for one year.* In some cases, the widow is given her late husband's accounts receivable; the survivor retains equipment and supplies; and the cash, if any, is divided. Collecting the receivables may expose the widow to unforeseen complications. What is the value of work in process which has not been billed? Or, if two partners have been attending one patient, who is to determine how the fee should be divided? It can be disturbing to the patient when the widow presses for payment of her share, and this may cause the patient to go looking for another doctor.
>
> "Like sudden death in any business partnership, tension is apt to arise between a survivor and the widow when they attempt to arrive at an equitable settlement. Any doctor may have heard of actual instances that resulted in unfavorable publicity and expensive litigation for both parties.
>
> "Whatever its circumstance, death in a medical partnership deprives a doctor's family of regular income. In its stead, they find only a few assets of doubtful value."

Dr. Maertz stresses the importance of a buy-and-sell partnership agreement to be drawn up in such a manner as to give all tangible assets of the deceased's practice to the surviving member, thereby avoiding death settlement complications. Under this arrangement the widow is paid by the survivor or survivors an equivalent of several years' earnings of her deceased husband. In most cases, the amount would approximate the value of the deceased partner's tangible assets plus a considerable potential value represented by the good will of the deceased physician's patients, many of whom would naturally turn to the surviving partner or partners for subsequent medical care. Such compensation would be payable either in a lump sum or installments.

"Rarely," Dr. Maertz states, "does a medical partnership have such a written agreement. Yet, even the most carefully worded buy-and-sell agreement is hazardous unless there are funds with which the survivor can fulfill his obligations to the widow."

The solution offered is life insurance written on the life of each partner with the premiums paid by, and proceeds assigned to, the other.

It should be unnecessary to belabor the point further that troubles which follow the death of a partner are avoidable. Aside from the excellent

(*Continued on page 276*)

OBSERVATIONS ON POLIOMYELITIS REPORT—1954

DANIEL L. SECKINGER, M.D., DR.P.H.
Director of Public Health, District of Columbia

It was my good fortune to have been invited to attend the meeting of the National Foundation for Infantile Paralysis and the University of Michigan for a report on the evaluation of the efficacy of the poliomyelitis vaccine used in the field study sponsored by the National Foundation for Infantile Paralysis in the spring of 1954. This historic meeting was held in the Rackham Lecture Hall at the University of Michigan, April 12, 1955. The National Foundation for Infantile Paralysis is to be congratulated upon its decision to employ the epidemiological approach of investigation and to engage the services of Dr. Thomas Francis, Jr., Professor of Epidemiology and Director of the School of Poliomyelitis for Vaccine Evaluation Center of the University of Michigan, to conduct the evaluation studies. Without the services of such a group as that of Dr. Francis and those associated with him, many errors might have occurred in such a large undertaking that could well have clouded the main issue—the effectiveness of the vaccine.

Another alumnus of the University of Michigan, Dr. Jonas Salk, produced the vaccine and conducted the field studies. Dr. Salk, now at the University of Pittsburgh, is a graduate fellow of Michigan and a former member of the faculty, associated with Dr. Francis and the School of Public Health. With such eminent scientists engaged in the work of polio control, it now seems evident that there is little we can add, on our level, except to interpret the results that have been made by these able investigators, and to follow through as they suggest.

Dr. Francis reported that there were 1,080,630 children in the total study, of whom one half were vaccinated and the other one half were not. The control group, who received a placebo, were from school grades one and three. Children in the second grade were inoculated with the polio vaccine. He said that 3 types of the vaccine were produced from 3 types of viruses, which were inactivated or killed by formalin. It was pointed out by Dr. Francis that type I polio vaccine was less effective against type I polio in preventing paralysis, but was effective in 60 to 70 per cent of the cases. It is more effective in preventing paralysis in 80 to 90 per cent of types II and III. He pointed out that antibody formation is essential for any good production of vaccine for polio.

He further emphasized that, in an undertaking of this sort, it was important that all cases of suspected polio be accurately diagnosed during the acute illness and that postmortems be done among those who did not survive a suspected polio infection that occurred. In connection with the diagnosing of cases, the services of physicians (pediatricians, orthopedists, and physiotherapists for muscle testing, and others) were employed. Laboratory studies were made of the antibody formation and detection of the virus in the stools, as well as postmortem examinations. It is evident that every possible check was made to exclude illness among the group that might be attributed to other causes than polio. Tribute was paid by the several speakers to the work of Dr. Francis in connection with the field studies as an important contribution to science.

In brief, the figures showing the effectiveness of the Salk anti-polio vaccine in last year's mass field trials were as follows:

Of 200,745 volunteer school children getting 3 doses of the Salk vaccine, 133 developed proven cases of polio, of which 71 suffered some degree of paralysis.

Of 201,229 school children who got placebos, 750 developed proven polio, of which 415 were of paralytic degree.

There were no polio deaths among the children getting all 3 shots of the vaccine. There were 4 polio deaths in the group getting the placebos.

Dr. Salk, in his statement, stated that, in preparing the paper for presentation at the meeting, it seemed best to present the subject generally and let the evidence speak for itself. He pointed out that, during the course of his work, it became quite clear that commonly accepted opinions not founded on quantitative observations cannot be supported for long. "It became evident that destruction of virus infectivity with retention of antigenicity, and the reaction involved in the immunologic response, were both governed by certain definable and unalterable laws."

He went on to discuss the method of the preparation of the vaccine and stated that "the principles involved in destruction of virus infectivity with formaldehyde and preparation of the vaccine does not reduce, in measurable degree, the antibody producing power of the virus. The vaccine prepared in this way is of such stability that no special precautions are required for its maintenance."

As to the question of the delayed interval between primary and secondary stimulation, necessary to induce what he referred to as the "booster" effect, he stated:

> "As will be seen in a moment, the period for the development of the hyperreactive state in man, following primary antigenic stimulation, seems to be a number of months rather than a period measured in weeks. The significance of these findings for utilizing the full potential of a vaccine has been amply confirmed, at least in so far as antibody measurement is concerned. These considerations have a very important bearing upon the question of persistence of vaccine effect, as well as upon the question of the most efficient utilization of a killed-virus vaccine."

Dr. Salk pointed out that although these facts were known even as early as in 1954, "it was not possible to put this knowledge into practice, because there was barely sufficient time before the onset of the seasonal upsurge to begin the studies then initiated." He emphasized: "The study conducted in the field in the spring and summer of 1954 was a test of the question as to whether or not primary vaccination alone could prevent paralytic poliomyelitis and not a test of the question of the effectiveness of full immunization, which could be achieved only if the course of inoculation could have been extended over a number of months at least."

Dr. Salk demonstrated that among school children who were given the vaccine intramuscularly on each of 3 occasions, separated by intervals of 2 weeks, a sharp response occurred after the first dose, a further rise after the second, but little if any occurred after the third, when given at this point in time after the 2 preceding inoculations (see chart 1).

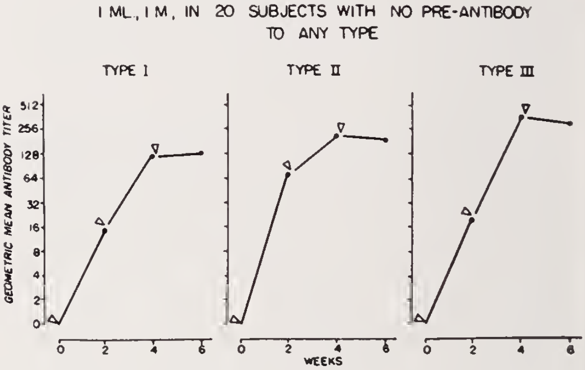
He stated that, because of the effects of merthiolate, a preservative used in the vaccine, there was a difference in the antigenic activity between the merthiolated and non-merthiolated sample of each batch of vaccine tested for antibody response and that there were much greater differences between merthiolated and non-merthiolated samples in proportion to the length of storage. However, if the merthiolated solution "contained a quantity of versene sufficient to prevent the merthiolate from having a destructive effect upon the antigen, the antiseptic or preservative qualities of the merthiolate are still retained in such mixtures."

He clarified the situation with reference to preservatives, as follows:

> "It should be clear from the findings just summarized that complete antigenicity of the formalinized vaccine, as we have described its preparation, can be retained for long periods of time at refrigerated temperatures (and for a number of weeks at 37° C) without demonstrable loss of antigenic activity. This has been true of the vaccine per se, without an added preservative. However, it now appears that it is possible to retain the stability of the antigen, while still retaining the advantages of the preservative, by the addition of versene."

CHART 1

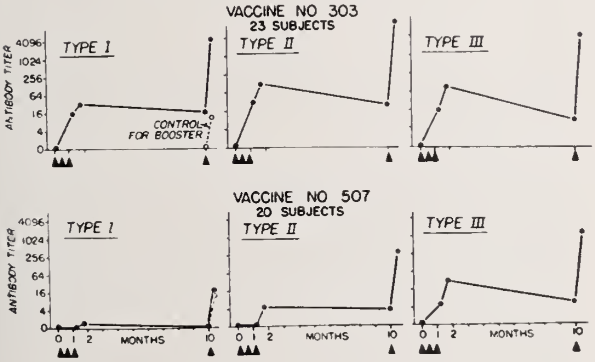
Geometric Mean Titers after Each of 3 Doses of Reference Vaccine "A"



An important part of Dr. Salk's paper necessarily concerned itself with the booster effect after a period of months. He showed graphically in chart 2 the effect of booster dose given 10 months after vaccination with 2 different kinds of vaccine lots used in the 1954 field test and explained: "It should be made clear from this that the level of antibody induced by the booster dose given 10 months after the primary vaccination was influenced by the intensity of the primary sensitization." However, he pointed out that the booster injection should be given 7 months or later after the first dose of vaccine. This conclusion was based upon "extensive study too detailed to present at this time." He emphasized that it takes a number of months for a state of hyperreactivity to develop, but that the hyperreactive state lasts for a considerable period of time. "The longest interval over which we have had the opportunity to test for the persistence of the hyperreactive state has been 2½ years after primary vaccination. Only time will permit a determination of the full extent to which the hyperreactive state persists following primary stimulation."

CHART 2

Effect of Booster Dose 10 Months after Vaccination with 2 Different Vaccine Lots Used in 1954 Field Tests



One point that seems to have been abundantly demonstrated is that whatever may have occurred in the 1954 vaccine that in any way reduced the antibody potency has been corrected in the 1955 lots that are now being distributed. At least this assurance was given by Dr. Salk and the Foundation, and the total effect should be a more potent vaccine and a higher degree of protection against paralytic and bulbar polio.

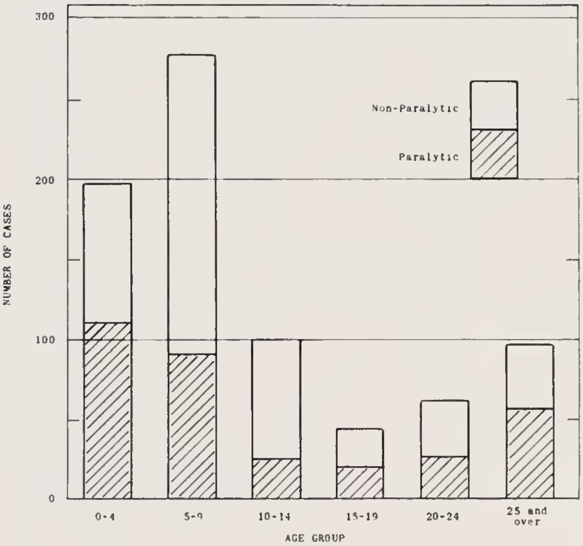
The total purport of the meeting was to the effect that we now have a vaccine therapy for the prevention of the paralytic effects of polio; that its potency in terms of antibody production can be measured, and that its safety has been adequately demonstrated in the laboratory before release for human use.

The march of preventive medicine in the attack upon human illness has been constant and effective over the years, but the report of the field trials by Dr. Francis and the studies of Dr. Salk electrified the world in a major demonstration which in one fell swoop sounded the death knell to a paralyzing disease that has horrified the civilized world for a half century. Never before has medicine in a meeting of a few hours proved its worth with such dynamic celerity and effectiveness.

In connection with this report we have been requested by physicians to make available to them through the MEDICAL ANNALS the age distribution of poliomyelitis in the District of Columbia. The reported cases of poliomyelitis among residents of the District of Columbia for the years 1948 through 1954 inclusive are shown in chart 3, "Reported Resident Cases of Poliomyelitis by Age, District of Columbia." While more children 5 to 9 years of age have experienced the disease during these 7 years, a larger number of children under 5 years of age have had paralytic poliomyelitis. These data clearly show that the greatest risk is among children under age 10. Efforts should be made to reach these age groups first.

CHART 3

Reported Resident Cases of Poliomyelitis by Age in the District of Columbia, 1948–1954



STRABISMUS SURVEY OF PRESCHOOL CHILDREN

A Case-finding and Public Information Project

MARTHA ELLIOTT

Health Educator, Prevention of Blindness Society of Metropolitan Washington, D.C.

For some time the Prevention of Blindness Society of Metropolitan Washington has been aware that many children with strabismus are not reaching treatment early enough to get best results. The fable that children will "outgrow cross-eye" is still very much alive in our folk medicine. Parents and even pediatricians and general practitioners are allies of this misconception when they counsel or agree to delay treatment until "little Johnny gets in school."

To ophthalmologists and prevention of blindness workers, it isn't news that the unused eye in strabismus loses vision. They know too well that amblyopia ex anopsia is one of the preventable types of visual loss. They further know that by the time Johnny does get in school this lost vision is difficult, if not impossible, to recover. And finally, they know that the cosmetic handicap of crossed eyes may have triggered a personality difficulty in Johnny leading to emotional and economic obstacles all his life. But the general public does not know what an insidious public enemy strabismus is.

Stimulated by these facts the Washington Prevention of Blindness Society set about a survey of preschool children in the spring of 1954 under the financial sponsorship of 14 local Lions Clubs. This survey had five objectives: (1) to determine the incidence of strabismus in as large a number of preschool children as possible; (2) to stimulate the interest of parents in strabismus; (3) to disseminate facts about strabismus to the general public; (4) to facilitate treatment of new, untreated cases of strabismus; and (5) to determine the reliability of simple screening tests for strabismus, usable by trained lay personnel.

Procedures

It was arranged with the Recreation Department of the District of Columbia to conduct this survey among children between 3 and 5 years of age in 45 preschool play centers administered by that agency in all parts of the city, including children of families at all income levels. In addition, the survey was carried on at Junior Village, a District of Columbia Welfare Department institution, which provides temporary care for needy children. A total of 866 children were screened for strabismus at these locations.

As instructed by ophthalmologists, the following screening procedures were carried out by staff members of the Society and selected volunteers: alternate eye cover test at close and far distance; single eye cover test at close and far distance; observation of rotation of the eyes into the cardinal fields; convergence; and observation of corneal reflection. These procedures were carried out with each child.

Two staff members supervised at each session. They were assisted by 4 volunteer aides, each of whom, after an indoctrination and training course, served during one session each week from January to June 1954. These volunteers also provided transportation for the Society's staff members to the 45 preschool play centers.

In the course of the screening procedure a possible defect was reported to the supervising staff member, who conducted an immediate recheck. Previous to referral to private ophthalmologists or eye clinics a recheck was made by a qualified ophthalmologist at the offices of the Society. This was a free service and entailed no obligation on the part of the parents.

Referrals were made by a trained medical social worker during personal interviews with parents. Cases, after recheck, were referred for examination and treatment to private ophthalmologists or to eye clinics, depending on the financial resources of the parents.

Publicity

The following means of disseminating facts about strabismus to the general public were used:

Six hundred posters carrying "before" and "after" treatment photographs of a child, and soliciting inquiries about "cross-eye" were displayed in street cars and buses for 5½ months. This space was donated by the transit advertising agency as a free public service. The posters resulted in 184 inquiries regarding strabismus.

TV slides and spot announcements were carried by 4 TV stations and resulted in 30 inquiries.

A feature story in the magazine section of the *Washington Sunday Star* on strabismus resulted in 96 inquiries.

An illustrated pamphlet written in simple language by the Society's Health Educator was sent to all inquirers. Personal counseling was done either by phone or by appointment wherever required. Parents brought 55 children into the office for screening tests in response to the publicity. These cases are not included in the survey totals.

Results

A total of 866 children were screened for strabismus at 45 preschool play centers of the D. C. Recreation Department and at Junior Village. Of this number 41, or 4.7 per cent, were found to have strabismus. Of these, 24 already had had some treatment; 17 others were referred for professional care. There were 9 more children who were considered to be doubtful cases at the first screening; 4 of these were recommended for further observation and 5 were found negative after medical examination.

Conclusions

We do not believe it is justifiable to draw general conclusions with regard to the prevalence of strabismus from this study of 866 children. However, the figure of 4.7 per cent resulting from this screening, confirmed by ophthalmological examination, indicates that strabismus is more common than is generally supposed. More surveys on a larger scale to show the national prevalence of strabismus in the preschool age group would be helpful in promoting the interest and medical care which this problem deserves.

The cordial reaction of parents to this strabismus study was particularly marked; annual screening of preschool children has been urgently requested by the Mothers' Council of Washington, D. C.

Public interest in strabismus was demonstrated by the number of inquiries received. The project was highly esteemed by the Lions Clubs which underwrote the costs. Our staff feels that the project contributed markedly to the prestige and popularity of the Society as a whole and was an excellent case-finding method, which is particularly difficult to develop in the prevention field.

The large proportion of previously undiagnosed defects indicated by the screening and confirmed by the ophthalmologist (17) compared with those found negative on recheck (5) indicates that the simple tests used can be administered by trained lay people and are sufficiently reliable for a screening procedure. It is to be noted that this project attempted to find cases of strabismus only. No attempt was made to find and refer phorias because of the difference of opinion among ophthalmologists as to their treatment.

CORRESPONDENCE

Washington 5, D. C., March 18, 1955

To the Editor:

From time to time I have heard discussions and read various articles with respect to the relationship between the private practitioner of medicine and the physician in industrial medicine. Criticisms have been forthcoming from both groups. Despite this, there is no question that today there is an increasingly larger sphere of understanding and coöperation between the physician in industry and his brother in the private practice of medicine.

Because of things which I have heard and have read from time to time, I do want to take this opportunity to express to the medical profession in the city of Washington and in the Metropolitan Area my sincere thanks for the wonderful coöperation which they have given to me and to the members of our medical staff of the Medical Department of The Chesapeake and Potomac Telephone Company. For the past eleven years it has been my privilege to have frequent and daily contacts with many men practicing medicine in the Metropolitan Area. Without exception we have had fine understanding, fine coöperation, and it is my belief that this sort of thing in the long run is helping all of us to do a better total job in the care of our patients and industrial worker.

This has been a heart-warming experience for all of us, and it gives me a great deal of pleasure to be able to direct this letter to you with the hope that it might find its way into the Medical Annals of the District of Columbia. This is the only medium through which I can express my thanks to all of those who have been so coöperative throughout the years.

With kindest regards, I am

Sincerely yours,
R. Lomax Wells, M.D.
Medical Director, The Chesapeake and Potomac Telephone Companies

On the Lighter Side

The Woman's Auxiliary Bowling League has completed its seventh successful year, and is bigger and better than ever, so says Anne Thorne Marland.

In 1948, the first year of the League's existence, there were only 16 lady bowlers to start things rolling; but now, the 1954–55 edition has placed a limit of 100 lady bowlers on its membership, with a waiting list twice that long.

The Woman's Auxiliary Bowling League has not only achieved bowling success but that success has been crowned by Rod Thomas of the *Evening Star*, who devoted an entire column to the League's activities—with pictures yet!

The Woman's League also has hidden talent along other more interesting lines; for instance – hula dancers. And good ones too. Six of these talented hip wigglers were on the coaxial cable recently from New York City, and we are sure that if these gifted gals were of a mind to they could give a pretty good all-girl talent show at the drop of a suggestion. (Girls, this is a broad but subtle hint in case you would like to entertain the D. C. Medical Bowling League at its annual banquet!)

On February 20 of this year, the ladies introduced "Medico—Pettico Night." This is something given to pacify the husbands of the lady bowlers, to keep the men in their place, and to mollify them a little bit. This was a sneaky way to get the little men lambs to the slaughter without warning them ahead of time. On this "Night" the wives bowled in active competition against the husbands, and Oh, what a shellacking those husbands had to take! Never again will those husbands make disparaging remarks about the little woman's bowling form, etc., etc., and etc.

On April 1, 1955 the Annual Bowling Luncheon of the Woman's Bowling League was held at the Congressional Club. There was eating, drinking, and the distribution of prizes. A new trophy was added this year, named the "Old Timer's Trophy," donated by Mrs. A. Frank Kreglow, the first chairlady of the Bowling League. This trophy will be inscribed with the name of the "old timer" showing the most improvement during each bowling year, and the trophy will be on exhibit in the library of the D. C. Medical Society building. This year the name of Mrs. V. John Murgolo will be engraved on the trophy because she showed the greatest improvement for an individual bowler during the past two years. Mrs. Murgolo raised her bowling average from 70 to 78 - 11. The greatest improvement in an individual average during the 1954–55 season for a new bowler was in Mrs. John P. Haberlin. This lady split the center for an early season average of 64, but later knocked off the pins for a 75 -13.

Here are the winning teams and the names of those bowlers who were responsible for their team's high standing in the League:

First place team: Mrs. Charles E. Rath, *Captain*; Mrs. Alexander C. Leonardo, Mrs. H. Lynn Colvin, Mrs. James E. Wissler, Mrs. Ashby W. Smith. Won 40 games, lost 17, with a pinfall of 23,641. Prize: Silver coffee service.

Second place team: Mrs. Robert D. Cawley, *Captain*; Mrs. Edgar E. Quayle, Mrs. John P. Haberlin, Mrs. Edward E. Ferguson, Mrs. August Kramm. Won 37 games, lost 20, pinfall 23,278. Prize: Silver shrimp set.

Third place team: Mrs. George H. Crofton, *Captain*; Mrs. Howard A. Donald, Mrs. V. John Murgolo, Mrs. G. Louis Weller, Jr., Mrs. Rex E. Buxton. Won 35 games, lost 22, pinfall 23,809. Prize: Silver tray.

Fourth place team: Mrs. Hugh O. House, *Captain*; Mrs. Hamilton P. Dorman, Mrs. C. Roger Kurtz, Mrs. John A. Reisinger, Mrs. Leo C. Varden. Won 35 games, lost 22, pinfall 23,737. Prize: Silver cigarette box.

The individual honors in bowling were collected by the following ladies:

High individual average of 94 – 7, Mrs. Hamilton P. Dorman. Prize: Steak knives.

High individual set of 322, Mrs. M. Noel Stow. Prize: Silver bowl.

High individual game of 132, Mrs. John M. Evans. Prize: Silver bowl.

High individual flat game of 93, Mrs. Paul F. Jaquet. Prize: Silver bowl.

High individual strikes of 17, Mrs. D. Franklin Hodge. Prize: Silver sugar shaker.

High spares of 63, Mrs. Julius J. Radice. Prize: Silver bowl.

There were also consolation prizes for those gals who "also bowled."

(*Continued on page 276*)

COMPETITIVE SPORTS: DESIRABLE OR DETRIMENTAL FOR TOTS TO TEEN-AGERS?

Views of a Health Educator*

FRED V. HEIN, Ph.D.

Consultant in Health and Fitness, Bureau of Health Education, American Medical Association

Competition is a part of our way of life, a valued American heritage. To it we attribute much of our progress in science and industry, our superior standard of living. Coöperation also is an essential factor in human affairs. Many of our endeavors depend for their success on the quality of coöperation achieved. A happy mixture of the two, competition and coöperation, makes for effective living in a democracy.

The ability to compete ethically and to coöperate effectively must be learned; no one is born with these skills. Athletics furnish one medium for such learnings—both competitive and coöperative. The player must do his part as an individual competitor but must also coöperate with other members of the team. Athletics then require a mingling of competitive and coöperative effort analogous to real life. Because they are so absorbing to youth they have their own self-contained motivation. This makes properly developed athletics particularly potent as a means of education.

Under good leadership athletics can help to teach moral and spiritual values—to mold character. They can provide wholesome recreation, both present and future. They can help to build organic vigor, improve strength, agility, endurance. But these values are not automatic outcomes of athletics; they must be vigorously sought and sometimes even fought for. A "win at any cost" philosophy can drive moral and spiritual values out the window, take the recreation out of athletics, and cause neglect of basic safeguards to health. Winning is a legitimate goal in athletics but our children and youth are not expendable in the effort.

Physicians will be particularly interested in measures to protect the health and safety of participants. Standards like the following have been suggested by a number of educational and medical groups, including the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association[1]:

1. A health examination should be required previous to participation, preferably on a seasonal basis with annual examination a minimum.
2. A physician should be present at all contests involving activities where the injury hazard is pronounced.
3. A contestant who has been ill or injured should be readmitted to participation only on the written recommendation of a physician.
4. A contestant upon returning to participation following illness or injury should be carefully observed and if there is any doubt as to his condition he should be referred to a physician.
5. The coach (faculty member in charge) should be competent in first aid and thoroughly versed in sports conditioning and training. It is also strongly recommended that all players be given basic instruction in first aid.
6. In case of head, neck or spine injury, or suspicion thereof, the player should be removed from play, placed at rest, and be given the immediate attention of a physician.
7. Every school should have a written policy regarding the responsibility for injury incurred in athletics, and this policy should be known to all participants, their parents, and other responsible adults. Arrangements should be made for obtaining and paying for medical and hospital care of injured participants.
8. The best obtainable protective equipment should be provided for all participants and special attention should be given to proper fitting of such equipment.
9. Competition should take place only between teams of comparable ability and playing seasons should be limited to reasonable duration.
10. No preseason games should be played until players are well drilled in fundamentals and have had a minimum of 2 weeks of physical conditioning.
11. Playfields should meet standard requirements

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* This article presents the views expressed by Dr. Hein during a Panel Discussion on Competitive Sports before the Medical Society of the District of Columbia, January 12, 1955.

for size of area, playing surfaces, and facilities for safety, and all reasonable precautions should be taken to prevent accidents.

12. Contests should be selected and rules and lengths of playing periods should be modified so as not to overtax the physical abilities of high school students.

Athletic competition needs to be as carefully graded as other parts of the school program. In the early school years (grades 1–3), young children find enough and suitable competition in informal play and their class activities in physical education. As the child grows older (grades 4–6) a desire for further competitive activity shows itself. He begins to enter the team game stage and as time goes on will turn more and more to this type of play. An athletic program which includes only a few children cannot satisfy this need.

First, a broad program of class instruction in physical education for all boys and girls is needed. Opportunities to learn skills in a wide variety of games and other activities will be emphasized. This requires definite teaching and not merely the throwing out of balls for unsupervised play.

Second, a varied program of informal play opportunities and intramural sports should be offered for boys and girls in the upper elementary grades. In such activities competition is confined to games and contests between teams within an individual school.

Third, occasional invitational games, sport and play days involving two or more schools may be arranged. Such activities are limited to neighboring schools or to a small geographical area. The emphasis is on informality without organized schedules, leagues, and championships.

A three-point program like the above makes the best possible distribution of available funds and facilities among all children. It provides satisfying activities for girls as well as boys, for the child with average skills, the physically gifted, and even the youngster with a handicap. Such a program spreads the benefits which competitive sports hold for children to all those who wish to take part. It permits the curriculum in competition to grow and develop at a pace consistent with the maturity of the child.

When the advisability of bowl games for college men is being debated, and when regulations for the conduct of high school athletics definitely bar such promotions, it is somewhat incongruous to even consider them for young, immature children of elementary school age. Yet bowl games and other programs that tend to force patterns of athletics designed for college athletes down into the elementary schools are being pushed in some places. This has led a variety of professional groups interested in the health and welfare of elementary school children to recommend against the following types of procedures and programs[2]:

1. Tournaments, frequent contests, long seasons, bowl games, or other procedures that cause undue pressures or make excessive physical demands on young boys and girls.

2. Games and contests played at night or other times outside usual school or recreation hours.

3. Travel beyond the immediate neighborhood or in the case of small rural schools to a nearby community.

4. "Grooming" of players for high school teams or attempts to make elementary school sports a "farm system" rather than a program for the children themselves.

5. Commercial promotions which under various guises seek to exploit youth for selfish purposes.

6. Programs which usurp a disproportionate amount of facilities, funds, and staff time for a selected few rather than all children.

7. Overemphasis by means of newspapers, radio, television or similar media, selection of "all-star" teams and other emulations of adult athletics.

At the secondary school level (grades 7–12) there can be a gradual transition to more formal competitive practices in the athletic program. This does not obviate the need for controls; rather it emphasizes the importance of appropriate safeguards to health including close medical supervision of participants. Again, class instruction in physical education and opportunities for informal and intramural sports participation for all youths are basic. A carefully developed interschool program including as wide a range of activities and as many players as possible serves the special needs of the physically gifted.

In the junior high school years (grades 7–9) the program should be designed to take into account the rapid growth and other physical and psychological adjustments that the youths are generally undergoing. The pressures of sustained play may induce a youngster to carry activity past the stage of healthful fatigue to one of harmful exhaustion. Sports involving severe body contact such as tackle football are generally felt to present special hazards at this age level. For all except a few "early maturers" a "varsity pattern" of athletics that mimics the senior high school program will be too demanding for junior high school youths.

Standards for athletics at the senior high school level, including health standards, have improved greatly in the last several years. Much of this progress has been due to the efforts of the state high school athletic associations and their national federation. Recommendations like the following now guide the conduct of the program[3]:

To be of maximum effectiveness, the athletic program will:

1. Be closely coördinated with the general instructional program and properly articulated with the other departments of the school.

2. Be such that the number of students accommodated and the educational aims achieved justify the use of tax funds for its support and also warrant the use of other sources of income.

3. Provided, that the time and attention which is given to the collection of such funds is not such as to interfere with the efficiency of the athletic program or of any other departments of the school.

4. Confine the school athletic activity to events which are sponsored and supervised by the proper school authorities so that any exploitation or improper use of prestige built up by school teams or members of such teams may be avoided.

5. Be planned in such a way as to result in opportunity for many individuals to explore a wide variety of sports and to set reasonable season limits for each listed sport.

6. Be controlled in such a way as to avoid the elements of professionalism and commercialism which tend to grow up in connection with widely publicized "bowl" contests, barnstorming trips, and interstate or intersectional contests which require excessive travel expense or loss of school time or which are claimed to be justified by educational travel values.

7. Be kept free from the type of contest which involves a gathering of so-called "all-stars" from different schools to participate in contests which may be used as a gathering place for representatives of certain colleges or professional organizations who are interested in soliciting athletic talent for their teams.

8. Include educative exercises to reach all nonparticipating students and community followers of the school teams in order to insure a proper understanding and appreciation of the sports skills and of the need for adherence to principles of game ethics.

9. Encourage a balanced program of intramural activity in grades below the ninth to make it unnecessary to sponsor contests of a championship nature in these grades.

10. Engender respect for the rules and policies under which the school conducts its program.

Such ideals, it is true, sometimes break down in actual practice. But such breakdowns have now become the exception rather than the rule. A reemphasis of values rather than deëmphasis of athletics is probably our greatest present need. Some schools, for example, need to give more attention to intramural sports, others to build up their instruction program in physical education.

Physicians have a threefold interest in school athletics. First, many as parents have children of their own who could or will participate. Second, many as family medical advisors will be called upon to advise or care for child patients who take part. Third, many in civic leadership roles, such as members of boards of education, will be asked to offer suggestions on programs and standards. In each of these capacities the physician has a heavy responsibility. Because of his understanding of the health implications of athletics his advice and counsel have special value. This makes it essential that the physician's voice be strongly raised in favor of standards in athletics that make possible safe and healthful competitive opportunities for all children and youth.

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SOUTHERN PEDIATRIC SEMINAR

Pediatrics, Internal Medicine, Obstetrics and Gynecology will feature the 35th Annual Session of the Southern Pediatric Seminar in Saluda, North Carolina. The course will be divided into 3 one-week sessions and those who wish to attend may come for 1, 2 or 3 weeks. The first week (July 11–16) and the second week (July 18–23) will be devoted to pediatrics and internal medicine. The third week (July 25–30) will be given over to obstetrics and gynecology.

The faculty of the Seminar consists of men from all over the South who are leaders in their respective fields. About half of them are members of medical school faculties and the other half are men in private practice. In this way there is a well balanced program of the theoretical, the scientific, and the practical.

Dr. Hugh H. Hussey, Professor of Preventive Medicine and Public Health at Georgetown University School of Medicine and Editor of GP, will again serve as Dean of Internal Medicine for the Seminar. His panel of speakers will include Dr. Sol Katz, Chief of the Division of Pulmonary Diseases, D. C. General Hospital; Dr. W. Proctor Harvey, Assistant Professor of Medicine, Georgetown University School of Medicine; Dr. Marcus Schaef, Chief Medical Officer, Georgetown Medical Division, D. C. General Hospital; and Dr. James M. Moss, of Alexandria, Va., all members of the District Medical Society, together with Dr. Eugene A. Stead, Professor and Head of the Department of Medicine, Duke University.

The Seminar is for the general practitioner, and is fully accredited by the American Academy of General Practice for postgraduate instruction. Those desiring further information should write to Dr. D. L. Smith, Registrar, 187 Oakland Avenue, Spartanburg, South Carolina.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
February 28	Dr. Milton Gusack	Tuberculosis	Mid-City Citizens' Association
March 9	Dr. Elizabeth Kittredge	Dating and Courting	Lecture Series of Jewish Community Center and Planned Parenthood Association of D. C.
March 16	Dr. Jed W. Pearson	Preparations for Marriage and Parenthood	
March 15	Dr. Robert Odenwald	Emotional Needs of Children	Ridgecrest Parent - Teachers Association
April 1	Dr. Harry H. Kerr Dr. William P. Herbst Dr. Charolotte Donlan	Cancer Answer Panel	WMAL - TV — D.C. Division, American Cancer Society
April 4	Dr. Dorothy Donley-Dowd Dr. Samuel Shwartz	Mental Health: Why Should I Care?	Hillcrest Heights Mothers Club
April 4	Dr. Harry H. Kerr Dr. Lois I. Platt Dr. Charlotte Donlon	Early Detection of Cancer	League of Republican Women and National Democratic Women's Association
April 6	Dr. Charles E. Fierst	Discussion of film, "Hypothermia in Cardiac Surgery"	Crestwood Citizens' Association
April 26	Dr. Caroline Jackson	The Value of the Periodic Health Examination	Oakview Women's Club, Silver Spring, Md.
May 25	Dr. William T. Gibb	Hypertension	International Association of Blue Print Artists and Allied Industries

News and Personals

MEETINGS—Past and Future

The American Medical Association will convene for its **104th Annual Meeting** at Convention Hall in Atlantic City, New Jersey, June 6–10, 1955. Highlights of the inauguration of Dr. Elmer Hess of Erie, Pa., as President of the Association will be broadcast Nationwide on Tuesday evening, June 7. Dr. Norman Vincent Peale, pastor of the Marble Collegiate Church of New York City, will give an address on "The Relationship of Religion and Medicine."

The Medical Society will be represented at the meetings of the House of Delegates by Drs. Hugh H. Hussey and Raymond T. Holden, delegates to the AMA, and by Dr. Preston A. McLendon, President, Theodore Wiprud, Secretary, and Lawrence A. Zupan, Assistant Secretary, of the Medical Society.

Point credits for retention and retirement may be earned by Reserve Medical Corps officers on inactive duty who attend the Military Medical Section of the AMA meeting. The authorization covers all eligible physicians of the Army, Navy, and Air Force Reserves.

Several members of the District Medical Society participated in the **Seventh Annual Convention of the International Academy of Proctology** at the Plaza Hotel, New York, March 23–26. Papers presented at the meeting by Washington physicians were:

"Fibrosarcoma of the Rectum—a Review of the Literature and the Presentation of Two Additional Cases," Drs. Raymond Stoller and Jacob J. Weinstein

"Carcinoma of the Colon—With or Without Symptoms," Dr. Henry Monat

"Present-day Management of Ulcerative Colitis in Ambulatory and Hospitalized Patients," Dr. Maurice Mensh

"Critical Clinical Analysis of 100 Consecutive Operations of the Sigmoid Colon," Drs. Jacob J. Weinstein and Raymond Stoller

"Hematological Aspects of Inflammatory and Malignant Lesions of the Colon with Special Reference to Definitive Diagnostic Methods and Treatment," Dr. Jack J. Rheingold

"The Avoidance of Rectal Injuries during Labor," Dr. Samuel M. Dodek

"Some Psychological Implications for the Patient Undergoing Colon Surgery," Dr. Daniel S. Jaffe

"Open Anastomosis in Obstructing Lesions of the Colon with Intraluminary Neomycin," Drs. William H. Ferguson and William W. Chase

"Volvulus of the Sigmoid with Gangrene as a Complication of Pregnancy," Dr. J. Keith Cromer

"Anterior Resection of the Sigmoid Colon for Diverticulitis," Dr. Charles S. White, Jr.

"Pathologic Evaluation of Rectal Lesions," Dr. Oscar B. Hunter, Jr.

"Problems of Roentgenologic Examinations of the Colon," Dr. Karl C. Corley

"Cardiovascular Evaluation and Management of the Elderly Patient Undergoing Major Surgery," Dr. Joseph Beinstein.

Dr. Jacob J. Weinstein was elected First Vice President of the International Academy of Proctology at the business session. Dr. Weinstein, an Associate in Surgery at George Washington University School of Medicine, was a member of the Program Committee for the Convention and arranged the Washington section.

The Baltimore-Washington Dermatological Society was host to the **Atlantic Dermatological Conference** in Washington, D. C., March 26. At the scientific sessions, held at the Walter Reed Army Medical Center, 35 unusual cases in the field of dermatology were presented and discussed. The social affairs took place at the Hotel Statler.

This Conference comes to Washington every 10 years. Some 300 dermatologists were present from Canada, the New England States, the Eastern Seaboard, from New York to North Carolina, and West Virginia. Dr. Jack L. Derzavis, President of the Baltimore-Washington Society, was Chairman of the Conference.

The Washington Psychiatric Society met in the Medical Society's building, April 8. Dr. Mottram P. Torre, of New York, spoke on "Psychiatry for Government Overseas Personnel." Discussion of his paper was led by Dr. Daniel Blain, Medical Director of the American Psychiatric Association, and by Dr. James P. Scanlon, Associate Professor of Psychiatry, Georgetown University School of Medicine.

The Society's Committee on Child Psychiatry held a scientific meeting at the Hillcrest Children's Center, April 29. The following program was presented: "Treatment of Adolescents in a Mental Hygiene Clinic," Dr. Sidney Berman; "Psychological Aspects of 'Pica': Studies on the Etiology of Lead Poisoning," Dr. Francis Millican and Dr. Emma M. Layman.

The Work Conference on Tuberculosis Nursing in Freedmen's Hospital, March 28–April 1, was sponsored by the D. C. League for Nursing, the Graduate Nurses' Association, and the D. C. Tuberculosis Association. Lt. Colonel Thelma Munn, President of the Graduate Nurses' Association, presided at the opening session, March 28. Other presiding officers during the Conference included Dr. Paul B. Cornely and Dr. John B. Johnson.

Members of the District Medical Society who took part in the program were Drs. Daniel L. Finucane, Milton Gusack, Roy G. Klepser, Howard M. Payne, and Donald R. Sickler.

GENERAL NEWS

The regular meeting of the **Executive Board of the Medical Society of the District of Columbia** was held on March 28. At this meeting Chairman Yater appointed the following members to serve as the Committee for the Selection of the Davidson Lecturer for 1955: Drs. Thomas M. Peery, Harold J. Jeghers, Zigmond M. Lebensohn, Herbert M. Giffin, and Don S. Knowlton.

With approval of the Board, President McLendon appointed the following members to a Special Committee on Hospital Regulations: Dr. Clayton B. Ethridge, *Chairman*; Drs. John Orem, Montgomery Blair, Jr., Paul Kiernan, Herbert P. Ramsey, Karl C. Corley, Oscar B. Hunter, Jr., and Albert Marland. "Regulations" as interpreted by this Committee will apply to facilities and not to treatment.

Dr. Alfred A. J. Den, Chairman of the Committee on Professional Liability Insurance, was appointed by the Board to represent his committee on the Grievance Committee.

It was voted to recommend to the Board of Censors the election to Honorary membership in the Medical Society of Major General Silas B. Hayes, new Surgeon General of the Army.

All physicians who desire a place on the lecture program at the next **Clinical Meeting of the American Medical Association,** to be held in Boston, November 29–December 2, 1955, are urged to communicate immediately with the Chairman of the Program Committee, Dr. Theodore L. Badger, c/o Massachusetts Medical Society, 22 The Fenway, Boston 15, Mass.

Applications for space in the Scientific Exhibit are now available and will be sent on request. Exhibits will supplement the lectures as far as possible, and should portray subjects of a broad general interest. Requests for applications should be sent to the Secretary, Council on Scientific Assembly, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

A progress report to physicians on immunization against poliomyelitis was televised Nation-wide over a closed circuit, April 12, 1955, through the courtesy of Eli Lilly and Company in coöperation with the National Foundation for Infantile Paralysis. A large number of Washington physicians gathered at Loew's Capitol Theatre in the early evening to hear this "briefing" directly from Dr. Jonas Salk, of the University of Pittsburgh, who perfected the vaccine, and Dr. Thomas Francis, Jr., of the University of Michigan, who conducted the survey among school children in 1954 to establish the effectiveness of the vaccine.

Earlier in the day Dr. Francis gave a preliminary evaluation report on these trials to a scientific assembly at Ann Arbor, under the auspices of The University of Michigan and the National Foundation for Infantile Paralysis. Dr. Daniel L. Seckinger, who was present at the assembly, gives his observations upon the report in a special article in this issue of the MEDICAL ANNALS.

The 31st Annual Kober Lecture was delivered at Georgetown University, March 28, by Dr. James Howard Means, Acting Director of the Health Department at Massachusetts Institute of Technology. He spoke on "The Nature of Medical Research." A graduate of Harvard College and Medical School, Dr. Means served as Jackson Professor of Clinical Medicine at Harvard and as chief of the medical services at Massachusetts General Hospital from 1923 until his retirement in 1951.

The Kober Lecture was established in 1923 to commemorate the 50th anniversary of Dr. George M. Kober's graduation from Georgetown University School of Medicine. The lecturer is selected each third year by the Medical Society of the District of Columbia, the Association of Military Surgeons of the United States, and the Association of American Physicians. This year's lecturer was selected by the Council of the latter organization.

Community Health Week was observed, March 21–26, under the sponsorship of the Junior Chamber of Commerce. Co-chairmen of the Week were Dr. William H. Cooper and Dr. William P. McKelway, both members of the Medical Society.

At the regular meeting of the Junior Chamber, March 24, Dr. Preston A. McLendon, the Medical Society's President, discussed preliminary plans for a Washington Health Fair, to be held in the spring of 1956 under the joint sponsorship of the Medical Society and the Washington Board of Trade. Dr. Daniel L. Seckinger, Director of Health for the District of Columbia, spoke on the prevention and treatment of chronic diseases.

In observance of Health Week, two X-ray units for free chest X-ray examinations were made available to the public, one operated by the D. C. Department of Public Health and the other by the D. C. Tuberculosis Association. An educational program in the field of tuberculosis was held each afternoon at the Hecht Company auditorium with the following speakers participating: Drs. Otis R. Farley, Howard M. Payne, R. Lomax Wells, Milton Gusack, and Donald R. Sickler.

The Joint Commission on Accreditation of Hospitals has just published its second annual list of hospitals fully and provisionally accredited as of December 31, 1954. Fully accredited hospitals in the Washington Metropolitan Area are as follows:

Alexandria, Anderson Orthopedic, Arlington, Central Dispensary and Emergency, Chestnut Lodge Sanitarium, Children's, Columbia, District of Columbia General, Doctors, Eastern Dispensary and Casualty, Episcopal Eye, Ear and Throat, Garfield Memorial, Georgetown University, George Washington University, Glenn Dale Sanitarium, Hadley Memorial, Prince Georges, Providence, Sibley Memorial, Suburban, and Washington Sanitarium.

The Hahnemann Hospital was provisionally accredited.

In recognition of the contributions in military preventive medicine made by Brigadier General James Stevens Simmons, Major General George E. Armstrong, Surgeon General of the Army, authorized the establishment of an annual lecture in his honor. The first in the series of **James Stevens Simmons Memorial Lectures** was given at the Walter Reed Army Medical Center, April 21. Dr. John Dingle, Professor of Preventive Medicine, Western Reserve University School of Medicine, was the lecturer. He spoke on "Respiratory Disease Research and Military Preventive Medicine."

Mr. Justin D. Bowersock, Executive Vice President of the Union Trust Company, has been named **President of the Hospital Council of the National Capital Area.** The Council represents 16 hospitals in the Washington Metropolitan Area; approved for membership in the Council were two additional hospitals, the Hadley Memorial and the Hahnemann Hospitals.

Mr. Bowersock is a member of the Board of Incorporators of Garfield Memorial Hospital and a member of the Board of Directors of Alexandria Hospital, where he is Vice President. He is also a Board member of the Community Chest Federation and has been active in Red Cross work.

Mr. J. Newton Brewer, of the investment firm of

Rouse, Brewer and Becker, was elected Vice President of the Council. Mr. Brewer is on the Board of Directors of Emergency Hospital.

Dr. Francis M. Forster, Dean of Georgetown University School of Medicine, has announced the establishment of a **Library of Catholic Medical History** at the Georgetown University Medical Center. The library will serve as a repository for material describing the advances made by Catholics and Catholic institutions in the field of medicine. To initiate the project, the Raskob Foundation for Catholic activities awarded a $5,000 grant to the Medical Center to provide for the purchase, collection and maintenance of manuscripts and books. The director of the project will be Dr. Andrew A. Marchetti, Professor of Obstetrics and Gynecology at Georgetown. Curator of the collection will be Margaret C. O'Byrne, librarian for the Medical-Dental Schools.

Dr. Otis R. Farley, on the staff of St. Elizabeths Hospital, has been named First Vice President of the **Greater Southeast Community Hospital Foundation, Inc.,** which is seeking a new hospital in Southeast Washington. The idea for a new hospital in the Southeast followed the decision of moving Providence and Sibley Hospitals to the Northeast and Northwest Sections. At a meeting at St. Elizabeths Hospital, March 22, the group decided to work toward the establishment of a 250-bed hospital at a contemplated cost of about $7,000,000. Mr. Ernest J. Read, President of the organization, said Federal funds for construction would be sought either through the Washington Hospital Center Act or the Hill-Burton hospital construction program. The group is composed of representatives of some 80 organizations in Southeast Washington.

Mr. Charles M. Goff, formerly Assistant Director of the Miami Valley Hospital, Dayton, Ohio, has been named **Administrator of Alexandria Hospital,** succeeding Mr. Van C. Adams, who resigned the position on March 1. Mr. Goff assumed his new duties on May 1.

Mr. Goff is a graduate of Gettysburg College; he received his Master's degree in hospital administration from Washington University in St. Louis. During World War II he served in the Army general hospitals as a medical administrative officer. Mr. Goff was nominated for the position by the American College of Hospital Administrators.

The Visiting Nurse Association celebrated its 55th Anniversary with a special luncheon at the Mayflower Hotel, March 18. Guest speakers for the occasion were Dr. Leonard A. Scheele, Surgeon General of the United States Public Health Service, and Mrs. Oswald B. Lord, United States representative on the United Nations Commission on Human Rights. A brief résumé of services available through VN was presented by the President, Mrs. James L. Houghteling. Mrs. Alan Valentine, luncheon chairman and a member of the Board of VNA, presided.

Preceding the luncheon, a conference was held for members of Visiting Nurse Associations and their friends. Sixteen units from 7 states and Canada were represented. Dr. John Minor, Chairman of the Medical Advisory Committee to the Washington VNA, presided and spoke on the subject, "The Physician and the Visiting Nurse," wherein he urged all physicians to familiarize themselves with the services available to patients through this organization.

Many doctors were among the 700 guests who attended the luncheon. Among them was Dr. Preston A. McLendon, President of the District Medical Society.

PERSONALS

Dr. Lorenz E. Zimmerman, Chief of Ophthalmic Pathology at Walter Reed Army Medical Center, directed a Postgraduate Course in Ophthalmic Pathology at the Armed Forces Institute of Pathology, March 21–25. In addition to directing the course, Dr. Zimmerman gave 6 of the 20 lectures. Attending the course were 44 postgraduate students and 10 instructors from all parts of the United States, Canada, Mexico, and Japan. These included civilian physicians in addition to medical officers of the Army, Navy, Air Force, Veterans Administration, and Public Health Service.

The Annual Meeting of the Ophthalmic Pathology Club was held at AFIP, March 29 and 30.

Membership in this private club of ophthalmic pathologists is limited to 31. There are 2 members in the Washington area, Dr. Zimmerman and Dr. Benjamin Rones.

Dr. Mitchell W. Spellman has been appointed to serve for 2 years on the District Board of Examiners in Medicine and Osteopathy. Dr. Spellman is a graduate of Howard University, where he is now Assistant Professor of Surgery. He is a diplomate of the National Board of Medical Examiners and the American Board of Surgery. He is a member of both the Medical Society of the District of Columbia and the Medico-Chirurgical Society.

Dr. Joseph W. Still, Assistant Professor in Physiology of George Washington School of Medicine, has been appointed to the National Committee on the Aging, a division of the National Social Welfare Assembly. This committee is attempting to solve the economic and social problems resulting from the increase of the aged among the population. It is also concerned with the problems of retirement and the establishment of better living conditions in institutions for the aged. Dr. Still is an Associate Member of the District Medical Society.

Thirty-six medical students of George Washington University were initiated into the **Smith-Reed-Russell Society** at a banquet at the Mayflower Hotel, April 4. Three faculty members selected for their contributions to medicine were named honorary members: **Dr. Elizabeth E. Hill and Dr. James R. Thistlethwaite,** Clinical Instructors in Surgery; **and Dr. James P. Murphy,** Associate in Neurological Surgery.

Dr. Walter A. Bloedorn, Dean of the School of Medicine, introduced the new members. The guest speaker was Dr. Leonard Carmichael, Secretary of the Smithsonian Institution and former president of Tufts College.

George Washington University Alumni Association awarded citations to 10 faculty members at its annual luncheon at the National Press Club, March 19. Honored for their 25 years of service to the Medical School were **Dr. Margaret M. Nicholson,** Clinical Professor of Pediatrics, **and Dr. Edward A. Cafritz,** Associate in Surgery.

Dr. David H. Kushner was elected Chief of Staff and **Dr. Stafford W. Hawken,** Deputy Chief of Staff, at the annual meeting of the Board of Directors of **Columbia Hospital for Women,** March 16. These physicians are well known to their staff associates and to members of the District Medical Society. Dr. Kushner succeeds Dr. Raymond T. Holden, who has been Chief of Staff for the last two years and who was elected to the Board of Directors.

Dr. Kushner

Dr. Hawken

Both Dr. Kushner and Dr. Hawken are graduates of Georgetown University School of Medicine, Dr. Kushner in 1929 and Dr. Hawken in 1931, and are serving their Alma Mater as Clinical Professors of Obstetrics and Gynecology. Both physicians are diplomates of the American Board of Obstetrics and Gynecology, Fellows of the American College of Surgeons, and members of the American Academy of Obstetrics and Gynecology and the Washington Gynecological Society. Dr. Hawken is attending gynecologist at VA (Mount Alto) Hospital and consultant in obstetrics and gynecology at Bowling Air Force Base.

Several Washington physicians appeared on the program of the **36th Annual Session of the American College of Physicians,** in Philadelphia, April 25–29. **Dr. Wallace M. Yater,** Director of the Yater Clinic, was the presiding officer at the afternoon session, April 27. Participating as clinicians in the several Clinical-Pathological Conferences featured during the meetings were **Drs. Theodore J. Abernethy, Sol Katz, and William S. Middleton. Dr. Monroe J. Romansky** was moderator for a Panel Discussion on Antimicrobial Treatment; **Dr. Edward D. Freis** participated in a Panel Discussion on Hypertension.

Two faculty members of **Howard University School of Medicine** were cited for outstanding service and achievement at the University's Seventh Annual College of Medicine Student Council banquet, March 12. They were **Dr. Walter L. Henry,** Assistant Professor of Medicine, and **Dr. Jack E. White,** Assistant Professor of Surgery.

Drew Pearson, columnist and news commentator, was the principal speaker; he spoke on "Freedom of the Press." Among the guests was Dr. Preston A. McLendon, President of the D. C. Medical Society.

Dr. Henry A. Latane, an Associate member of the District Medical Society, was named General Practitioner of the Year in Virginia by the Virginia Medical Society. The award was announced, March 31, by Dr. Christoper J. Murphy, Jr., President of the Alexandria City Medical Society.

Dr. Latane, a direct descendant of Augustus Washington, half brother of the first President, received his medical degree in 1912 from the University of Virginia. He entered private practice in Alexandria after his discharge as Lieutenant in the U. S. Army Medical Corps during World War I.

Dr. Latane has been a member of the Alexandria Hospital staff the past 35 years and originated the laboratory at the Hospital which bears his name. He helped establish the Circle Terrace Hospital and has founded tuberculosis clinics in Alexandria, Arlington County, and Loudoun County.

Dr. Charles A. Hufnagel, Associate Professor of Cardiovascular Surgery at Georgetown University School of Medicine, received honorable mention at a luncheon of the Junior Chamber of Commerce at the Burlington Hotel, February 24. Dr. Hufnagel, who is Director of the Experimental Laboratory in Surgery at Georgetown Hospital, was cited for his development of the plastic valve.

Dr. Ralph G. Beachley, Director of Public Health in Arlington County, has been appointed to the Rehabilitation Committee of the American Public Health Association. Dr. Beachley, an Associate member of the District Medical Society, is Adjunct Professor of Public Health Administration at George Washington University School of Medicine.

Dr. Thomas McPherson Brown, Professor of Medicine, George Washington University School of Medicine, **and Dr. Robert J. Coffey,** Professor of Surgery, Georgetown University School of Medicine, were invited to participate in the Third Annual Assembly of the West Virginia Academy of General Practice, in Charleston, West Virginia, April 16–17. The program featured 17 department heads from 17 different institutions. Dr. Brown gave an address on "A Study of the Basic Mechanism of Rheumatic Diseases," April 16, and Dr. Coffey spoke on "Hyperfunctioning Tumors of the Endocrine Glands," April 17.

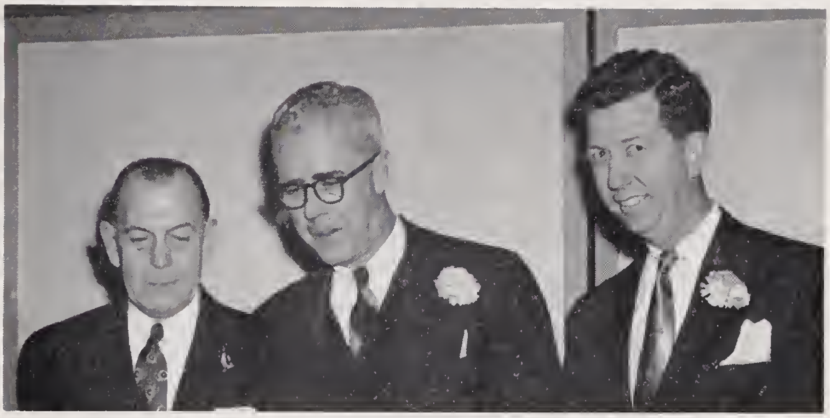
During the week of March 20, Dr. Brown served as Chief of Medicine Pro Tem at the Atlantic City (New Jersey) Hospital.

Washington physicians who participated in the **Seventh Annual Scientific Assembly of the American Academy of General Practice** in Los Angeles, March 28–31, were **Dr. Hugh H. Hussey,** Editor of the Academy's GP, **Dr. Charles Hufnagel, Dr. I. Phillips Frohman, Dr. Edward Freis, and Dr. James M. Moss,** of Alexandria, the latter an Associate member of the District Medical Society.

Dr. Hussey was moderator of a Panel Discussion on Medical and Surgical Aspects of Peripheral Vascular Diseases, and Dr. Hufnagel was one of the panelists. Dr. Freis and Dr. Moss were represented in the Scientific Exhibit; Dr. Freis' exhibit featured the treatment of high blood pressure and Dr. Moss', the diagnosis of diabetes mellitus. Dr. Frohman was editor of *Abstracts*, a compilation in abstract form of the scientific presentations.

Dr. Thomas McPherson Brown, Director of George Washington University Hospital's Arthritis Research Laboratory, accepted a check for $1,000 from Mrs. Louis Cooper, President of the Irving Cooper Foundation, at ceremonies held in the Laboratory, April 13. The Cooper Foundation is a philanthropic organization of 155 members established in memory of Private Irving Louis Cooper, who was killed on Saipan during World War II. The new grant will be used to carry on basic research in arthritis.

Dr. Addison M. Duval, Assistant Superintendent of St. Elizabeths Hospital, foresees the mental hospital of the future as providing short-term, intensive care of mental patients, with more modern facilities to be provided for long-term care. He addressed the closing session of a three-day conference of state directors of vocational rehabilitation, state health commissioners, and mental hospital superintendents from the District of Columbia, Puerto Rico, Maryland, Virginia, West Virginia, North Carolina, and Kentucky. The conference, held at St. Elizabeths Hospital, March 25, was sponsored by the office of Vocational Rehabilitation, the National Institute of Mental Health, and St. Elizabeths Hospital.



HONOREES OF GEORGETOWN UNIVERSITY ALUMNI CLUB

Georgetown University Alumni Club honored these three members, who are also members of the District Medical Society, at a luncheon at the National Press Club, March 17. Left to right, they are: DR. KARL H. WOOD, DR. ROBERT J. COFFEY, AND DR. OSCAR B. HUNTER, JR.

Dr. Arch S. Russell, Jr. addressed the Southern Society of Anesthesiologists in Memphis, Tenn., during its annual meeting, April 14–16. The paper he presented, on "Changes in Blood Volume Incident to Surgery and Anesthesia," was co-authored by **Dr. Robert J. Fink** of the Hunter Memorial Laboratory, Doctors Hospital.

Dr. Carl Berg has been reappointed Chairman of the Medical Advisory Committee to the District of Columbia Chapter of the National Foundation for Infantile Paralysis, Inc. **Dr. Edgar P. Copeland** will serve as Chairman of the Nominating Committee.

Dr. A. B. C. Knudson, Chief of Physical Medicine and Rehabilitation of the Veterans Administration, participated in the spring session of the Eastern Section of the American Congress of Physical Medicine and Rehabilitation in Boston, April 23. Dr. Knudson, an Associate member of the District Medical Society, spoke on "Physical Medicine and Rehabilitation: Changing Perspectives and Expanding Potential."

Dr. William K. Billingsley, Jr., who has been associated with The Boyd Clinic in Long Beach, California, for more than a year past, has returned to Washington and has resumed his practice of internal medicine and gastroenterology in association with Dr. William M. Ballinger at 1801 Eye Street, N.W.

Seven alumni of Georgetown University were honored, March 17, at the Fifth Annual Awards Luncheon of the **Georgetown Alumni Club of Washington,** held in the ballroom of the National Press Club. Among those who received awards, in the form of a citation, for accomplishments reflecting credit upon the University were: **Dr. Robert J. Coffey,** Professor and Director of the Department of Surgery, Georgetown University School of Medicine; **Dr. Oscar B. Hunter, Jr.,** director of pathology at Doctors, Sibley Memorial, and Montgomery County Hospitals, and Director of the Oscar B. Hunter Memorial Laboratory; **and Dr. Karl Hayden Wood,** President of the District of Columbia Dental Society.

Dr. Paul A. Reed was co-author with Dr. Thomas W. Mattingly of a paper on "The Atypical Patent Ductus: Clinical Diagnosis and Surgical Management," in a program presented at Walter Reed Army Hospital, April 14. The program, which consisted of a Symposium on Diagnosis and Management of Cardiovascular Diseases, was sponsored by the Scientific Council of the Washington Heart Association and was presented by staff members of the Hospital's Pediatric, Cardiology and Thoracic Surgical Services.

Two members of the Medical Society have resigned because of their removal from Washington. **Dr.**

Robert J. Faulconer, who was pathologist in the Laboratory Division of Walter Reed Army Hospital, is now on the staff of Leigh Memorial Hospital in Norfolk, Virginia.

Dr. William A. Shannon, a former Associate member of the Society, has established himself in Sarasota, Florida. His address is 513 South Orange Avenue.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, March 28, 1955, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Charles K. Bush, Jr., 6104 River Road, Bethesda, Md.
John F. J. Clark, 517 Montana Avenue, N.E.
James R. Coleman, 113 Carroll Street, N.W.
Albert F. Fleury, 915 19th Street, N.W.
Jose F. Gutierrez, 4809 Seventh Street, N.E.
I. Howard Kaiser, 4222 Warner Street, Kensington, Md.
Samuel S. Morrison, 8515 Rosewood Drive, Bethesda, Md.

Associate Members

Walter Kurland, Veterans Administration Hospital
Lyman C. Wynne, 13106 Okenawa Avenue, Rockville, Md.

The following applicants for membership will be voted on at the meeting of the Executive Board, May 23, 1955.

For Active Membership

Robert R. Belton, George Washington University—1948
Charles M. Crittenden, Howard University—1952
Arthur H. Kiracofe, George Washington University—1949
Herbert N. Munhall, University of Virginia—1946
Max G. Sherer, Boston University—1950

For Associate Membership

Robert L. Baird, Howard University—1951
Leonard B. Berman, New York University—1947
James M. Moser, Jr., Georgetown University—1943
Bernard H. Ostrow, George Washington University—1948

The following applicants for membership will be voted on at the meeting of the Executive Board, June 27, 1955.

For Active Membership

Jack Crowell, George Washington University—1951
Maryanna E. Dotson, George Washington University—1951
Frederick D. Drew, Howard University—1952
Morton P. Eanet, George Washington University—1951
Marvin L. Kolkin, New York Medical College—1947
A. Genevieve McEldowney, Women's Medical College of Pennsylvania—1944
William H. Weidman, University of Colorado—1947

Recent changes in membership status:

Active to Associate

J. Frederick Barr
Alfred Brockunier
Edward J. Carry
Ambrose H. Cook
LeEarle Drake
George J. Fleury, Jr.
Abraham I. Gimble
David S. Gordon
Earl W. Graef
Franklin D. Hendricks
Montgomery E. Higgins
William P. Hynes
Jacob Kotz
Gordon W. Kelley
Charles E. Law
Beatrice di Marco
E. Anne D. Mattern
William J. B. Orr
Raimundo W. Rodriguez
Ralph Stiller
Andrew Tessitore
W. Raymond Thomas

Active to Affiliate

Thomas G. Edison
Charles M. Weber

Active to Resident-Intern

James E. Abell
William F. Colliton, Jr.

Affiliate to Associate

M. Hayne Kendrick

Resident-Intern to Associate

Jean D. Lockhart

Resigned

Active

Andrew N. Conte
Robert J. Faulconer
Robert E. Martin
Claude Moore
John R. O'Brien
Marshall C. Sanford

Associate

Robert Anderson
Hugh S. Geiger
Douglas J. Giorgio
Claude W. Mitchell
Arthur J. Mourot
Eugenia E. Murphy
Helen K. O'Brien
Ergi Pesiri
Henry Rappaport
William A. Shannon
Ferdinand Welebir

Resident-Intern

William Leavenworth

BOOK REVIEW

Peripheral Circulation in Man, from A Ciba Foundation-Symposium. G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Jessie S. Freeman, M.B., B.S., D.P.H., Editors. Assisted by Joan Etherington. Price, $6.00. Pp. 219, with 72 illustrations. Boston: Little, 1954.

The Ciba Foundation is an international center, established as an educational and scientific charity under the laws of England, which owes its inception and support to the Ciba Foundation of Switzerland but is administered exclusively by a Board of Trustees. As one part of the Foundation's activities, informal symposia or colloquia strictly limited in membership are arranged to which leading research workers from different countries and different disciplines are invited.

"Peripheral Circulation in Man" was the subject of a symposium arranged in succession to one held and published earlier on "Visceral Circulation." The book covers the methods for studying blood flow, the changes in circulation due to exposure to cold or heat, the actions of adrenaline and noradrenaline on blood flow, the neurohistology and reflex control of the circulation and the effects of sympathectomy, the significance of cold agglutinins, and the influence of visceral activity on the peripheral circulation.

Contributors to the symposium include workers in the fields of anatomy, physiology, biophysics, pathology, internal medicine, surgery, and aviation medicine. The book, which is 219 pages long, is not only informative but stimulating. Those interested in the field of the peripheral circulation in man will find much of interest and value in this little book.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Recent Advances in Medicine and Surgery (10–30 April 1954). Based on Professional Medical Experiences in Japan and Korea 1950–1953, in 2 volumes. Army Medical Service Graduate School, Walter Reed Army Medical Center, Washington, D. C. Price, paper, $1.75. Pp. (Vol. I) 530; (Vol. II) 421. Washington, D. C.: U. S. Government Printing Office, 1955.

Current Therapy 1955—Latest Approved Methods of Treatment for the Practicing Physician. Edited by Howard F. Conn, M.D. Consulting Editors: M. Edward Davis; Vincent J. Derbes; Garfield G. Duncan; Hugh J. Jewett; William J. Kerr; Perrin H. Long; H. Houston Merritt; Paul A. O'Leary; Walter L. Palmer; Hobart A. Reimann; Cyrus C. Sturgis; Robert H. Williams. Price, $11.00. Pp. 692. Philadelphia: Saunders, 1955.

A Textbook of Physiology, 17th ed. Edited by John F. Fulton, M.D., Sterling Professor of the History of Medicine, Yale University School of Medicine, with the collaboration of Donald H. Barron, William D. Blake, John R. Brobeck, George R. Cowgill, Paul F. Fenton, Thomas R. Forbes, Samuel Gelfan, David I. Hitchcock, Hebbel E. Hoff, David P. C. Lloyd, Theodore C. Ruch, Jane A. Russell. Price, $13.50. Pp. 1275, with 600 illustrations. Philadelphia: Saunders, 1955.

The Medical Care of the Aged and Chronically Ill with Particular Emphasis on Degenerative Disorders, Advanced Cancer and Other as Yet Incurable Diseases. Freddy Homburger, M.D., Research Professor of Medicine, Tufts College Medical School. Price, $5.75. Pp. 253. Boston: Little, 1955.

Christopher's Minor Surgery, 7th ed. Edited by Alton Ochsner, M.D., F.A.C.S., William Henderson Professor of Surgery and Chairman of the Department of Surgery, Tulane University of Louisiana School of Medicine, and Michael DeBakey, M.D., F.A.C.S., Professor of Surgery and Chairman of the Department of Surgery, Baylor University College of Medicine. Price, $9.00. Pp. 547, with 251 illustrations. Philadelphia: Saunders, 1955.

Sports Injuries—Prevention and Active Treatment. Christopher Woodard, Honorary Consultant to British Olympic Teams 1948 & 1952. Price, $3.00. Pp. 128. London: Max Parrish, 1954.

LEO BRISON NORRIS, A.B., B.S., M.D.

(1892–1955)

Dr. Leo Brison Norris, popular Washington physician, died suddenly, March 29, 1955, at his home, 2204 R Street, N.W., where he also maintained his office.

CA

Dr. Norris was born, April 23, 1892, in Washington, D. C., the son of the late Brison and Mary

Lanahan Norris. After attending the District public schools and graduating from Gonzaga High School, he enrolled in Georgetown College, receiving his A.B. degree in 1913 and his B.S. degree in 1915. He graduated from Georgetown University School of Medicine in 1917 and interned at Georgetown Hospital.

During World War I Dr. Norris was commissioned Lieutenant in the Naval Medical Corps and served aboard the *U.S.S. Minnesota* and at the Naval Dispensary.

Dr. Norris had practiced in Washington for more than 35 years; he was a specialist in internal medicine. From 1918 to 1925 he was Associate Professor of Physiology at Georgetown and from 1925 to 1937, Professor of Physical Diagnosis.

Since 1919 Dr. Norris had been an Active member of the Medical Society of the District of Columbia. He was a diplomate of the American Board of Internal Medicine. Membership in scientific organizations also included the American Medical Association, the Southern Medical Association, Association of University Professors, Association of Military Surgeons of the United States, Georgetown Clinical Society, and the Clinical Club. He also belonged to the Calvert Club, Army-Navy Country Club, and the Military Order of Foreign Wars.

Survivors are his wife, Mrs. Marion Hungerford Norris; three sons and four daughters: Leo B. Norris, Jr., La Plata, Md.; Mrs. Howard Smith, Jr., Alexandria, Va.; Mrs. James McKim Symington, Wilton, Conn.; Miss Shearer Norris, Paris, France; and Laura, Charles and Robert Norris, all living at home.

He is also survived by three brothers and a sister: Frank X. Norris, Detroit, Mich.; Mrs. Laura Shine, West Yarmouth, Mass.; and Dr. Cornelius Norris and Joseph A. Norris, both of Washington.

LYMAN FREDERICK KEBLER, Ph.C., B.S., M.S., M.D.

(1863–1955)

Dr. Lyman Frederick Kebler, retired Chief of the Drug Division of the Bureau of Chemistry, Department of Agriculture, died in Casualty Hospital, March 4, 1955. Dr. Kebler was known as one of the Nation's foremost leaders in securing passage of the Food and Drug Law by the United States Congress in 1906.

Dr. Kebler was born in Lodi, Michigan, June 8, 1863, the son of George J. and Sophia Gumpper Kebler. He brought renown to "a little red school house" near Lodi. After attending high school in Saline and Ypsilanti, Michigan, he enrolled at the University of Michigan, receiving successively degrees in pharmaceutical chemistry, 1890; B.S., 1891; and M.S., 1892.

Following graduation Dr. Kebler accepted a position as chief chemist of the Philadelphia Drug Company in Philadelphia. As opportunity permitted he took special courses at Jefferson Medical College, and in 1902 matriculated as a regular student at Temple Medical College. The same year he accepted a position as Chief of the Drug Laboratory in the Department of Agriculture in Washington. Continuing his medical studies at George Washington University School of Medicine, he received his medical degree in 1906. During his 25 years in Government service he prepared thousands of cases against fraudulent manufacturers, advertisers and vendors of drugs and food. Upon retiring in 1929 he set up a private practice as a consultant in the food field.

Dr. Kebler taught at the Iowa Agricultural College, 1888 and 1889; University of Michigan, 1891–92; and he was Assistant Professor of Pharmacology and Materia Medica at Georgetown University for 20 years. He contributed many articles to the scientific literature in his special field.

He was a member of many professional societies, including the American Pharmaceutical Association, the American Chemists Society, and the District Medical Society. He was an Active member of the latter from 1908 to 1922, when he transferred to Associate status. He served on the United States Pharmacopoeia Revision Committee from 1910 to 1920, and was Secretary of the United States Pharmaceutical Convention from 1910 to 1930.

He was a founder and twice President of Citizens' Forum of Columbia Heights. He was a 33rd Degree Mason and a Past Patron of the Order of the Eastern Star.

His wife, Mrs. Ida Shaw Kebler, died a few years ago. He is survived by two daughters, Miss Ruth Kebler, of the home address, 1322 Park Road, N.W., and Mrs. Mable Kohr, of Birmingham, Michigan.

PAUL ALOYSIUS McNALLY, A.B., A.M., Ph.D., Sc.D., LL.D.

(1890–1955)

The Reverend Paul A. McNally, S.J., Vice President of Georgetown University and former Dean of its Medical School, died March 4, 1955, at his residence on the campus. He was an Associate member of the Medical Society of the District of Columbia from 1947 until his death.

Father McNally was born in Philadelphia, October 14, 1890, the son of Charles S. and Martha Tully McNally. After obtaining his early education at St. Joseph's High School in Philadelphia, he entered the Society of Jesus in 1908. He graduated from Woodstock College, Woodstock, Maryland, in 1917 where he obtained the degrees of Bachelor and Master of Art. He received his doctor of philosophy degree from Fordham University in 1921, and his doctorate in sacred theology from the Gregorian University in Rome in 1925. He studied two more years at the University of San Francisco.

He was Professor of Higher Mathematics at Boston College from 1915 to 1919, and Professor of Philosophy at Fordham University from 1919 until 1921. He was Assistant Director of the Georgetown Astronomical Observatory from 1926 to 1928, when he was appointed Director. He held the latter post until he was named Vice President of the University in 1942. In line with his experience in astronomy, Father McNally participated in several solar eclipse expeditions.

In 1946, Father McNally was appointed Dean of the School of Medicine and Regent of the Dental School and the Georgetown University Medical Center, encompassing the new Georgetown Hospital which opened in 1947. At the time of his death, Father McNally also was Chairman of the Physics Department at the University.

Father McNally was a trustee of both Hospital Service Agency and Group Hospitalization, Inc.; he was honorary consultant to the Surgeons General of the U. S. Navy, Army and Public Health Service. He was a Fellow of the American Association for the Advancement of Science and the Royal Astronomical Society of England. He was a member of the American Astronomical Society, the Astronomical Society of the Pacific, the Washington Academy of Sciences, and the Cosmos Club.

Among honorary degrees conferred upon him were two law degrees from the University of San Francisco and Georgetown University. He also held a doctorate in science from St. Joseph's College in Philadelphia.

Survivors are his father, Charles S. McNally, of Philadelphia; a sister, Mrs. G. H. McGrath, of Crofton, Pa.; and three brothers, the Rev. Herbert P. McNally, S.J., with the Navy Chaplains Corps at Jacksonville Naval Air Station, Florida; Major John T. McNally, Miles Post Office, Va.; and Eugene E. McNally, of Philadelphia.

Emotional Problems among Executives—Braceland

(*Continued from page 224*)

Harold Wolff[6] remarked in his recent book, "Stress and Disease": "A considerable proportion of man's illnesses is a function of his goals, his methods of attaining them and the conflicts they engender. . . . There are many things more important than comfort and a few even more important than health. But a man should realize what his actions and goals are costing him. Then, if he chooses, he may pay for them in pain and disease. Often he will decide that his values are poor, that he has been confused, and thence change his direction and his pace."

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Asphyxia Following Chest Injury—Nolan

(*Continued from page 238*)

standstill due to ventricular fibrillation or asystole must be borne in mind at this time and treated vigorously if it should occur.

SUMMARY

Crushing chest injuries, and the wet lungs which are produced by them, create respiratory emergencies which must be recognized early and treated vigorously if fatalities are to be prevented. When the period of respiratory emergency has been successfully managed, the patient may make a complete recovery from what had appeared to be a hopeless or desperate situation, certain to eventuate in a fatality. The reversal of the profound disturbances associated with asphyxia, by the simple procedure of tracheotomy, is elaborated.

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Cardiovascular Surgery—Nestor

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Death in Medical Partnerships—Observer

(*Continued from page 254*)

suggestions made by Dr. Maertz, the best advice which can be offered to a physician contemplating entering a partnership is that he and his associates employ competent legal counsel and have him put in proper legal form the provisions which he and the partners, after thoughtful consideration, agree should be incorporated in their agreement.

"In and Out of Focus" will not appear in the June, July and August issues of Medical Annals. It will be resumed with the September number.

T. W.

On the Lighter Side—Kadan

(*Continued from page 260*)

Banquet note: Now we know why the Cleveland Indians lost the World Series baseball games to the New York Giants in 1954. The movies of the 4 games played were shown to an enthusiastic audience at the Washington Urological Society's Annual Dinner on Wednesday, April 6, 1955. This gourmet's delight was held in the newly decorated ballroom of the Mayflower Hotel, and the speaker of the evening was Mr. Lew Fonseca, old-time big-time baseball player and former Manager of the Chicago White Sox.

Thanks to Dr. Leonard S. Berman, genitourinary specialist of the Washington area, this reporter had an enjoyable evening.

Chuckle note: Wife: "Would you say a man has more sense after he's married?" Husband: "Yes, he does. But unfortunately, it is too late then."

J. Earl Kadan, M.D.

MEDICAL ANNALS
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VOLUME XXIV *June*, 1955 NUMBER 6

PROTRUSION OR RUPTURE OF THE LUMBAR INTERVERTEBRAL DISKS

The Principal Cause of Low Back Pain with Sciatica*

JAMES PETER MURPHY, M.D.
Assistant Clinical Professor of Neurological Surgery, George Washington University School of Medicine

ALTHOUGH the combination of low back pain and sciatica as a disease syndrome was known to the ancients, there has been a great increase, real or apparent, in the incidence of this complaint in very recent modern times. The patient of today presents himself for treatment promptly, since he has learned to expect relief of symptoms, whereas his ancestor was content to bear "sciatic neuritis" with fortitude. Modern physicians, aware of the significance of low back pain and sciatica, institute prompt diagnostic examinations and definitive treatment of the growing number of individuals with these complaints. It may also be true, as students of body mechanics have declared, that the human back is breaking down as society becomes more mechanized. However, there has been no significant decrease in the physical load of the laborer as compared with that of his predecessor, and desk-workers now take much more physical exercise in leisure time than did "white-collar men" of a century ago. The major reason for the apparent high frequency of the low back-sciatic syndrome in present clinical practice is the relatively recent discovery that protrusion or rupture of lumbar intervertebral disks is the principal cause of intractable pain in the back and leg.

Through the original observations of Mixter and Barr and of Dandy and Peet in the 1930's it became evident that cartilaginous intraspinal masses compressing one or several of the lumbosacral nerve roots in patients with severe sciatica are really external herniations of the central nuclei of spinal disks and not "chondromas" as had been thought previously. Recognition of the traumatic origin of lumbar disk rupture soon followed, as did realization of the various clinical manifestations of disk herniation, and a new era in neurosurgical therapy was born. So widely popularized has the concept of the ruptured disk become that the diagnosis is being applied to almost any type of pain in the lower back and leg. Oversimplification of explanation of these order to arrive at a proper diagnosis of disk protrusion as the cause of low back pain and sciatica.

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* Delivered at the 59th Annual Convention of the National Medical Association in Washington, D. C., August 12, 1954.

Etiology and Pathogenesis

The caudal end of the body is prone to congenital weakness, since embryologic completion is tardy here and is often incomplete. Furthermore, the brunt of mechanical force involved in lifting and straining is borne by the lower back, particularly at the lordotic lumbosacral angle. The intervertebral disk is built like a drum with a semi-fluid content, the nucleus pulposus, which is the residuum of the embryonic notochord. Posterolaterally the sides of the drum are weak, since the posterior longitudinal spinal ligament reinforces the disk capsule or annulus fibrosus only in the center of the back. When an individual falls on the buttocks, bends forward to pick up a heavy weight and lifts it by pulling himself erect, or sneezes in a flexed position, incalculable force is applied to the incompressible nucleus pulposus, which tends to bulge outwards posterolaterally. If the blood supply to the internal cartilage, always poor, is further injured, or if the disk capsule is congenitally weak or has been stretched or torn by previous strains, loosened or necrotic nucleus pulposus now her-

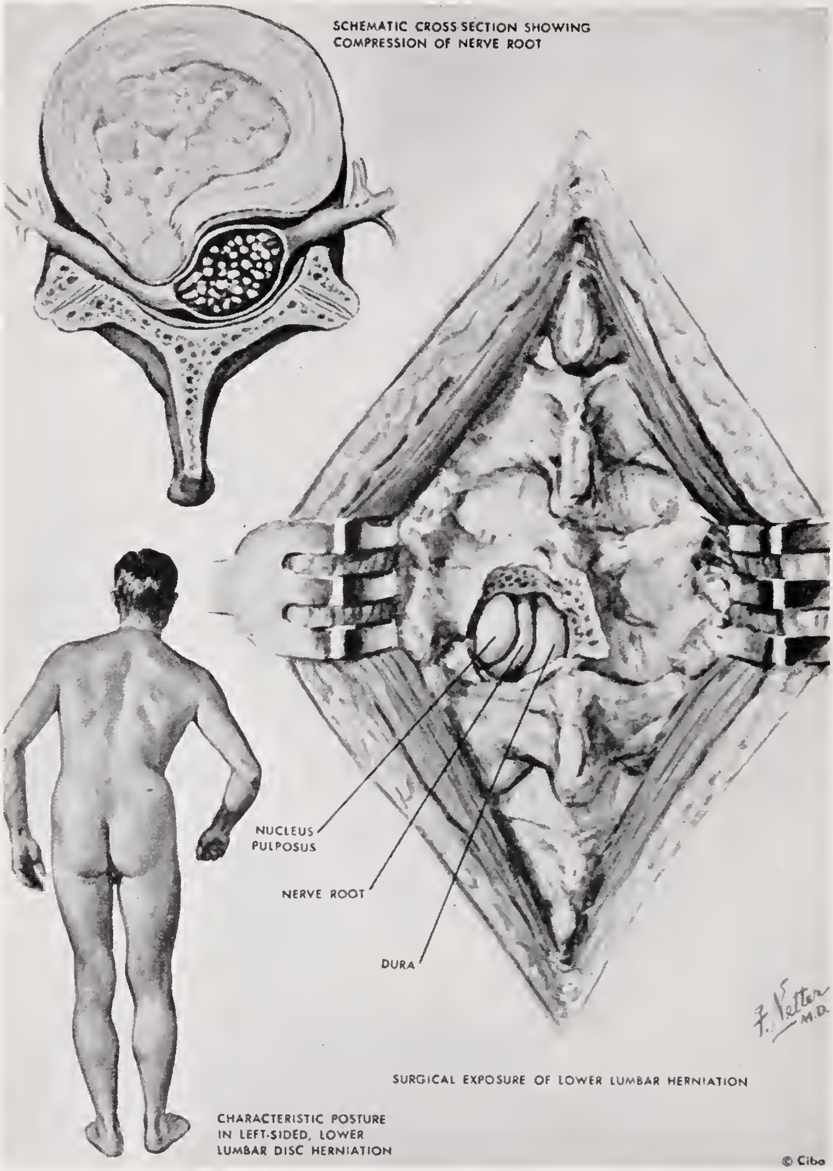
SCHEMATIC CROSS-SECTION SHOWING COMPRESSION OF NERVE ROOT
NUCLEUS PULPOSUS
NERVE ROOT
DURA
F. Netter M.D.
SURGICAL EXPOSURE OF LOWER LUMBAR HERNIATION
CHARACTERISTIC POSTURE IN LEFT-SIDED, LOWER LUMBAR DISC HERNIATION
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FIG. 1. Left posterolateral protrusion of the nucleus pulposus of the fourth lumbar intervertebral disk. Operative approach to lesion, right, with bilateral exposure of lumbar laminae shown. Usual procedure involves unilateral exposure only. (Reproduced from full-color illustration from The Ciba Collection of Medical Illustrations. Vol. 1. Nervous System. Summit, N. J.: Ciba Pharmaceutical Products, Inc., 1953, p. 113.)

very common complaints is to be avoided as much as is ignorance of the characteristic ruptured disk syndrome. A proper step-by-step analysis of historical data, physical findings, and the results of laboratory examinations must be made in this as in any other disease condition in niates severely or actually ruptures through the capsule. The spinal nerve root in its dural sheath is caught between the protruded disk and the bony vertebral lamina which immediately overlies it (figure 1).

When this event occurs the patient often notices a "snap" or "tear" in the low back. Ruptures of the lumbar disks usually involve the fifth disk between the last lumbar vertebra and the top of the sacrum, slightly less frequently the fourth lumbar disk, and much less commonly the third lumbar disk. Since the recurrent branches from the posterior sensory nerve roots run to the vertebral ligaments and lumbar muscles, the first clinical sign is that of low back pain and lumbar muscle spasm, the familiar "lumbago." Other recurrent sensory fibers innervate the sacroiliac region, and pain therefore radiates from the midline of the back to the sacroiliac joint, giving the condition of early lumbar disk protrusion the misnomer of "sacroiliac sprain." Actually, it is almost impossible to dislocate the firm sacroiliac joint, as inspection of a skeleton will demonstrate.

Low back pain is more severe in the erect position, since the weight of the body is applied to the sensitive area. Nerve root irritation continues, spasm of the lumbar muscles progresses reflexly, and unilateral contraction tilts the pelvis and hip up on the affected side with consequent apparent but not actual shortening of the ipsilateral leg. The pain spreads into the buttock, hip, posterior thigh and inguinal region.

If the degree of disk injury is mild and the afflicted individual is fortunate, the capsular tear heals, the bulging nucleus pulposus recedes, and the construction of the disk is restored or the necrotic nucleus absorbs. If, however, trauma is severe or is further repeated, the gap in the disk capsule is forced further open, the degenerating cartilage is extruded more forcibly against the overlying nerve root and lamina, and the disease syndrome is worsened and becomes chronic. When the annulus fibrosus is truly perforated or widely torn and stretched and the disk bulge enlarges, sciatic pain radiates from the buttock down the length of the leg to the ankle and foot and becomes more prominent than back pain. When sciatica is severe and is due to disk rupture, back pain may actually subside. Lumbar muscle spasm, scoliosis of the spine, and vertebral or paravertebral tenderness persist, since they are slow to change.

The significant pathogenetic result of disk rupture or protrusion is compression of a lumbar or sacral nerve root. Hence, sciatic pain outweighs back pain in the clinical response to disk protrusion. Pain in the leg is almost always unilateral rather than bilateral; the contrary more often characterizes processes involving the spinal cord or entire cauda equina.

SYMPTOMS AND SIGNS

The typical historical sequence of events with lumbar disk protrusion is: (1) initial trauma to the lumbar spine, direct or indirect, remembered or forgotten; (2) lumbago or the "low back syndrome"; (3) sudden or gradual development of sciatica, pain radiating from sacroiliac joint, hip and buttock to the lateral and posterior thigh, calf, ankle and foot; (4) accentuation of symptoms with repeated back strains, severe or minor; and (5) eventual intractability of discomfort, sciatica outweighing pain in the back (table 1). The age of the patient may range from adolescence to the senium; the youngest case in

TABLE 1

Symptomatic History of Ruptured Lumbar Disk

1. Initial trauma to lumbar spine, direct or indirect
2. Lumbago or low back pain
3. Sciatica of sudden or gradual development
4. Accentuation or recurrence of symptoms with repeated back injuries
5. Intractable discomfort, pain in leg worse than pain in back
6. Increase of pain during coughing, sneezing, straining
7. Relief by lying flat, aggravation during walking, bending, lifting.

my series was a 15-year-old girl, the oldest a man of 76 years.

Most patients with disk protrusion prefer a straight chair to a soft one, avoid stairs and stepping off street curbs, and acquire many other habits to seek relief. Almost every patient with a ruptured disk is made comfortable by lying flat on a hard surface, a bedboard or even the floor, and is made worse by standing or walking for long periods of time. Exactly the opposite is true of the patient with an intraspinal tumor, and this information is valuable in the differential diagnosis of the two conditions.

The findings on physical examination are also characteristic. The patient walks with great care, bearing his weight on his "good" leg. He is bent forward slightly as his pelvis and hip are tilted up on the affected side, and the painful leg is slightly flexed to take stretch from the sciatic nerve. Compensatory tilting of the upper back and neck often causes pain in the neck, shoulder and arm. If the process is of long standing there may be atrophy of the buttock, thigh and calf of the painful leg. The lumbar muscles are in spasm on one or both sides, and the lumbar spine is curved, usually with concavity toward the side of pain.

Most important to the diagnosis of ruptured lumbar disk are: (1) severe limitation of forward-bending with the knees straight, at which time scoliosis is accentuated, (2) accentuation of sciatic pain by forced backward and ipsilateral back-bending, (3) percussion tenderness over and just lateral to the spine of the affected vertebra, (4) increase of sciatica to unbearable limits by passive, straight leg-raising and dorsiflexion of the foot (Lasègue's sign), (5) reproduction of pain by compression of the neck veins while the patient sits (Naffziger test), and (6) various radicular syndromes corresponding to the level of disk rupture (table 2).

Protrusion of the fifth lumbar or lumbosacral disk compresses the first sacral nerve root. There result weakness of plantar flexion of the foot, absence or diminution of the ankle jerk, loss of sensation over the fourth and fifth toes, heel, back of the calf and lateral side of the thigh. Rupture of the fourth lumbar disk involves the fifth lumbar nerve root. Sensory loss is present over the skin on the dorsum of the foot and the great and adjacent toes. Weakness of dorsiflexion of the foot or even foot drop may be present. Knee and ankle jerks are usually preserved. If plantar flexion of the great toe is weak, the fifth lumbar disk is herniated. When dorsiflexion of the hallux is impaired the fourth disk is protruded. With rupture of the third lumbar disk, pain is felt anteriorly rather than posteriorly in the leg in the vicinity of the knee. The knee jerk is often absent, and there is loss of sensation over the knee cap. Large cartilaginous protrusions, by compressing several nerve roots, will produce a multiple or mixture of these radicular syndromes, and individual variations in innervation also account for occasional lack of consistency in the typical clinical patterns described. The sphincters are rarely affected from lumbar disk rupture, although many patients complain of numbness in the rectum, penis or vagina.

TABLE 2

Physical and Neurologic Findings with Ruptured Disk

1. Limping gait
2. Scoliosis of lumbar spine with pelvic tilt
3. Spasm of lumbar muscles
4. Atrophy of buttock and calf
5. Limitation of forward flexion of the spine
6. Increase of sciatica by forced backward and ipsilateral back-bending
7. Percussion tenderness over affected vertebral disk
8. Severe pain during straight leg-raising
9. Depression or absence of ankle jerk, rarely of knee jerk
10. Sensory loss over toes, foot, ankle, calf, shin, thigh
11. Tenderness of the sciatic nerve
12. Weakness of dorsal or plantar flexion of foot or toes.

LABORATORY EXAMINATIONS

Standard roentgenograms of the lumbosacral spine are of little value in establishing the diagnosis of disk rupture or protrusion. Narrowing of one or more lumbar disk spaces in lateral films does not necessarily correlate with protrusion of the nucleus pulposus. Nonetheless, plain X-ray films should always be taken in order to reveal or eliminate alternative causes of low back pain and sciatica. There are likewise no characteristic changes in the spinal fluid, which should also be examined at the time of myelography because of possible value in differential diagnosis.

The laboratory roentgenographic examination of greatest practical value is myelography. This procedure, which is comparable to barium study of the gastrointestinal tract, is one in which the introduction of a radiopaque substance, Pantopaque, into the lumbar spinal canal allows the visualization by contrast of the interior of the spine and of pathologic processes which encroach upon the spinal cord and nerve roots internally or externally (figure 2). Myelography in expert hands is accurate in the diagnosis of 85 per cent of cases of ruptured lumbar disk. In the remaining 15 per cent of cases myelographic defects are seen when disk protrusions are not found at operation, or the procedure is roentgenographically negative when disk rupture is actually present. Therefore, the myelographic examination does not replace the impression gained from physical examination but is an adjunct to it. Myelography is of particular value in: (1) eliminating tumor of the terminal spinal cord or cauda equina as a cause of low back pain and sciatica, (2) verifying or denying the presence of an anatomic defect encroaching on 1 or several lumbosacral nerve roots, (3) exact localization of the site of disk protrusion, (4) reinforcing surgical judgment to explore the region of an involved nerve root, and (5) providing pictorial evidence of disk rupture, which may be of considerable interest to the patient, his family, insurance adjusters and other interested parties. Rarely, the rupture of a lumbar disk may be on the side opposite to sciatica. The small incidence of complications of this diagnostic procedure is outweighed greatly by the definite value of the examination.

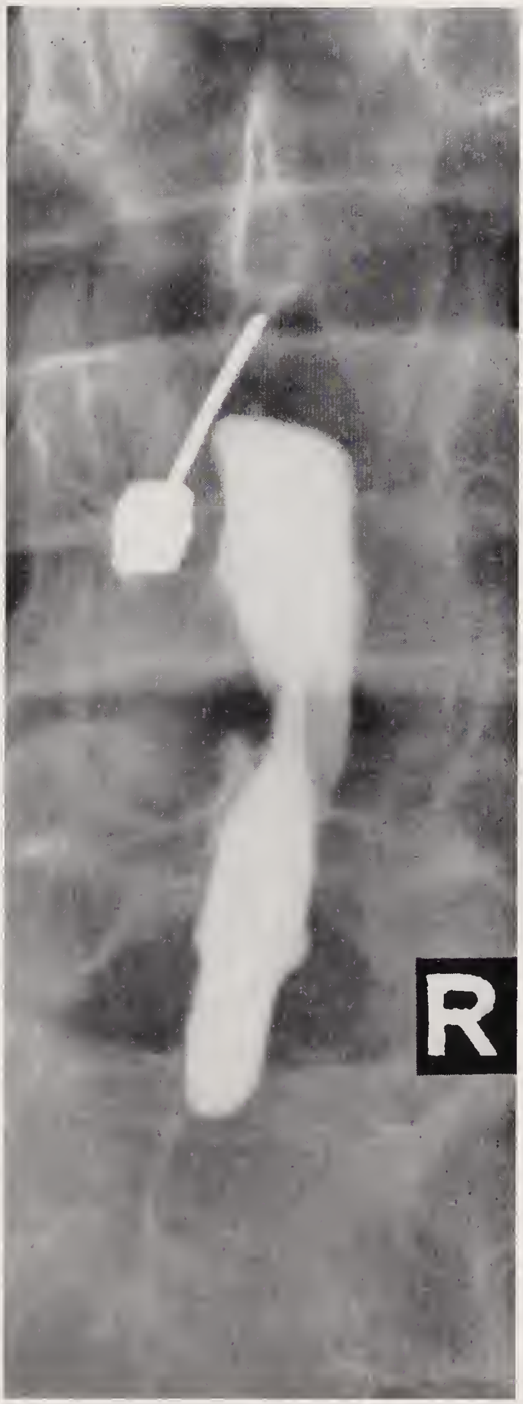

FIG. 2. Lateral filling defect in myelogram just below and to right of hub of needle. Protruded disk, L_4, left.

Electromyography is also being employed in the diagnosis of protrusion of the lumbar disks.

Since muscular irritability as a secondary manifestation of nerve root irritation will persist after a minimal disk protrusion has subsided, there is little benefit from electromyography in deciding whether or not surgery is indicated. Individual variation in distribution of spinal nerves interferes seriously with accuracy of localization of pathologic processes. Myelography is much superior in every way. In the procedure known as discography Diodrast is injected into the nucleus pulposus of the disk. Disease of the cartilage may be verified, but spinal cord tumor cannot be ruled out by this technic.

Diagnosis

The diagnosis of protruded or ruptured lumbar intervertebral disk may be made when: (1) low back pain occurs acutely or develops gradually after direct or indirect trauma to the lumbosacral spine, (2) sciatic pain in the leg follows or accompanies back pain within a relatively short period of time, (3) pain is accentuated by walking, bending, lifting, standing or sitting and is relieved by lying flat, (4) general physical examination reveals limitation of flexion and extension of the spine, sciatic pain in the affected leg during straight leg-raising, and tenderness over a vertebral spinous process, lamina, and along the course of the sciatic nerve, and (5) neurologic examination discloses sensory loss, reflex depression and motor weakness in the cutaneous and muscular tissues innervated by a specific lumbar or sacral nerve root or roots and is negative elsewhere. Plain X-ray films of the lumbosacral spine may or may not demonstrate disk narrowing or arthritis and eliminate the possibility of malignant processes. Myelography in the majority of cases reveals external encroachment upon the lower dural canal as a filling defect in the vicinity of 1 or more nerve roots, usually at the level of the fifth or fourth lumbar disks. Rarely there may be a complete intraspinal myelographic block. The spinal fluid is clear, but the protein content may be increased slightly.

Differential Diagnosis

Primary tumor of the lower spinal cord or cauda equina is important to distinguish from ruptured disk because each may mimic the other and the operative approaches to the conditions are quite different. Lumbosacral neoplasms cause pain and neurologic changes in both legs rather than in one, sphincters are involved frequently, relief is obtained by the erect posture or by walking instead of by supine rest, the spinal fluid is xanthochromic, and myelography discloses a complete obstruction to the oil column or outlines the tumor. Metastatic malignant lesions should always be thought of as a cause of low back pain and sciatica in the older age group; metastases may be present in other bones or in the lungs, serum phosphatase values may be elevated, local destruction of the lumbosacral spine may be evident in plain X-ray films, and myelography demonstrates multiple bilateral encroachments upon the dural sac by epidural cancer or vertebral collapse. Primary malignant tumors of bone in the lumbosacral spine or pelvis ultimately produce erosion recognizable roentgenographically. Neoplasms of the sciatic nerve are extremely unusual.

Arthritic sciatica is common in older people. Clinical and X-ray evidences of arthritis are evident in the lumbosacral spine, intervertebral foramens, and elsewhere in the body, particularly in the small joints. If myelography discloses a filling defect and nerve encroachment corresponds to complaints, operation is often in order because disk rupture may coincide and nerve-root decompression from bony spurs may afford relief unobtainable otherwise. Marie-Strümpell's arthritis can cause excruciating sciatica in young people. Hypertrophic changes are seen in X-ray films of the sacroiliac joints, the chest expansion is limited, and gritty ligaments are found at operation. Again, surgical decompression of nerve roots may be beneficial.

The syndrome of enlarged epidural venous varices of the lumbar spinal canal cannot be distinguished from protruded lumbar disk disease on either clinical or myelographic grounds. Sciatica is severe in the upright position, is relieved by lying flat, and back pain is usually minimal. The necessity of accurate preoperative distinction is of little concern, since patients with severe complaints must be treated surgically in either case and the unroofing of the intervertebral foramen to allow expansion of bulging veins obtains the same relief as excision of a ruptured disk. Sciatica from epidural venous varices is presently coming to attention and is a not uncommon pathologic condition.

Congenital malformations of the spinal column, epidural tissues, dura and cauda equina are unusual causes of low back pain and sciatica. Spondylolisthesis of the lumbosacral spine is visible in lateral roentgenograms; stretching and compression of the caudal sac is responsible for symptoms, and ruptured disk is almost never coincident. Spina bifida occulta is a common, ordinarily asymptomatic malformation of the lumbosacral area which very rarely is productive of pain during forward bending when a congenital fibrous band binds the spinal ligaments to the caudal dura. Cysts of the sacral nerve roots are visible when Pantopaque is trapped in them during myelography. Removal of such cysts has relieved sciatica in patients so afflicted.

Fractures and dislocations of the lumbosacral spine occur after severe trauma to the back and are revealed in X-ray films of the vertebral column. Herniation of the nucleus pulposus is hardly every a complicating factor in the acute state of injury. However, since spinal dislocation cannot occur without damage to a disk which binds 2 vertebral bodies together, protrusion of 1 or several disk cartilages may be a chronic residual effect. Fractures of the pelvis, dislocations of the hip joint, contusions of the buttock and posterior thigh, and injuries of the knee and proximal fibula may all involve the sciatic nerve in its tibial or peroneal divisions. Peroneal palsy is an unusual complication of skeletal or skin traction applied to the leg in the treatment of fractures of the thigh or of low back pain. In all of these conditions sciatica and manifestations of sciatic nerve injury are prominent and back pain is minimal or absent.

Osteomyelitis of the spine with epidural abscess due to tuberculosis or pyogenic infection produces a syndrome of febrile malaise with cord compression, and X-ray films disclose vertebral destruction. The rare but potentially serious occurrence of tuberculosis of the disk necessitates pathologic examination of all specimens of nuclear cartilage removed surgically.

Miscellaneous neurologic causes of sciatica or other pain in the lower extremity include alcoholic or deficiency neuritis, diabetic neuropathy, subacute combined degeneration of the cord accompanying pernicious anemia, multiple sclerosis, and meralgia paresthetica. Intrapelvic disease, rectal disorders and duodenal ulcer are occasional non-neurologic causes of low back pain with radiation into the legs, usually only proximally and bilaterally. Nonetheless, all of these conditions are misdiagnosed as ruptured disk on occasion when the chief complaint is due to an unusual variation of typical symptom-patterns or to referral of pain at a distance. The necessity of general physical and complete neurologic examinations in the patient with low back pain and sciatica is evident.

Treatment

CONSERVATIVE TREATMENT

Nonoperative management is in order and is usually successful when: (1) The attack of low back pain and/or sciatica is an initial episode and has not lasted longer than 6 weeks, (2) the syndrome although of recurrent type is featured by a preponderance of lumbago and a minimum of sciatica, (3) general physical and roentgenographic findings indicate arthritis as a very probable cause of complaints and the patient is over 50 years of age, and (4) loss of sensation, weakness and reflex abnormality in the lower extremity are minimal or absent. When the patient is anxious to avoid surgery, and when his relatives, nonmedical advisers and other interested parties have filled his mind with doubts concerning operative treatment, a trial of conservative therapy is often indicated even when a disk is obviously ruptured, if only to demonstrate the futility of measures short of removal of the disk. Under these circumstances the patient should be made aware of the possibility of permanency of footdrop or of other neurologic disability if delay in surgery is insisted upon.

The aim of conservative treatment is to assist spontaneous subsidence of disk protrusion and nonoperative decompression of the affected nerve root. The measure which is most effective in achieving this goal is complete rest upon a hard mattress supported by boards, the patient lying flat on his back or in a position of partial flexion, whichever is more comfortable. Experience has demonstrated that traction on the affected lower extremity, on both legs, or on the pelvis is of additional benefit either by accomplishing slight but definite elongation of the lumbar spinal column, which exerts a negative pressure within the disk, or by pulling the compressed nerve root toward the midline and away from the bulging disk cartilage. Seven pounds of weight is usually applied to each leg.

The use of diathermy or other forms of heat over the lower back tends to relieve lumbago by relaxing spastic muscles, as does oral medication containing mephenesin and parenteral injection of curare preparations. Mephenesin (Tolserol) is helpful when anxiety and restlessness tend to aggravate muscle spasm. Analgesics of the usual type afford relief from acute pain, aspirin-codeine compounds being especially effective.

Massage of the back muscles, quadriceps setting, and hamstring relaxation are physiotherapeutic measures which shorten convalescence when the lumbago-sciatic syndrome is subsiding. Many patients obtain at least temporary symptomatic benefit by flexion-extension manipulations of the painful lower extremity and lower back—hence the popularity of chiropractic and osteopathic treatment. Needless to say, a truly ruptured disk cannot possibly be cured by manipulation, and vigorous twisting and extension of the affected leg, particularly under anesthesia, is actually dangerous, since taut nerve roots have been ruptured in this fashion.

Support of the back by adhesive tape applied tightly, or use of a back brace or application of a body cast is a common form of physical treatment often helpful in the stage of acute back strain or during the convalescent period. Some individuals subject to repeated attacks of lumbago keep a brace on hand to wear during the multiple episodes which do not progress to severe sciatica. If, however, relief of back discomfort and particularly of leg pain is only partial, is largely the result of temporary limitation of forward bending, depends entirely upon continued wearing of the brace, or severe pain recurs as soon as the appliance is discarded, the patient usually has a protruded or ruptured disk which must be treated surgically.

Intensive conservative treatment should bring about definite relief of symptoms and signs within 7 to 14 days if cure is to be obtained. Further immobilization of the patient or of his back when no significant results have appeared in this period of time merely postpones inevitable surgery. When sciatica is severe and the only medical suggestion is that of continuance of obviously ineffective nonsurgical therapy, the suffering individual may become despondent and even aggressive in his desire to be free from unbearable pain.

SURGICAL TREATMENT

Any anatomic defect, in this case a protruded or ruptured lumbar intervertebral disk, which causes severe pain that is inconvenient, distressing, recurrent, and ultimately persistent and disabling must be corrected surgically if the patient is again to lead a comfortable, productive and useful life. The surgery of the ruptured lumbar disk is therefore one type of surgery for pain, although restoration of impaired nerve and muscle action is frequently a matter of equal urgency and importance as in the case of acute footdrop due to severe nerve-root compression. Furthermore, the individual with a ruptured disk whose symptoms and signs have not responded to traditional methods of treatment of "back trouble" often begins to doubt his own sanity, particularly when he is treated as a neurotic because there are few external evidences of physical disease. If conservative therapy has failed and if complaints are troublesome or incapitating, a myelogram should be made. If the diagnosis of protruded or ruptured disk is thereby established, or at least is not countermanded, surgical removal of the diseased nucleus pulposus is undertaken.

Technic of operation. The modern surgical procedure of disk surgery has been simplified from the original total laminectomy. The spinous processes and laminae of the third to fifth lumbar vertebrae and the upper part of the sacrum are exposed unilaterally, and the ligamentum flavum is excised from the interspace overlying the protruded disk. The interspace is further enlarged laterally with rongeurs. The nerve root underlying is identified and carefully retracted medially, revealing the bulging nucleus pulposus. The thinned or actually ruptured capsule is incised, and the cartilaginous nucleus is removed in one or several pieces, the interior of the disk being curetted to obtain further retained necrotic tissue (figure 1). Although multiple disk protrusions are the exception rather than the rule, at least one other (fourth or fifth) lumbar interspace is explored gently even if the myelogram was negative there. Vigorous retraction of more than one nerve root to visualize disk capsules may result in temporary postoperative footdrop. The incisional approach as described permits investigation of 3 lumbar interspaces if need be.

Only occasionally is spinal fusion undertaken at the time of disk surgery. In the large majority of patients from whom protrusions of the nucleus pulposus have been removed this additional procedure is unnecessary. Spontaneous internal fixation of the contiguous cortical plates of the vertebrae is complete within 3 months, and temporary slight instability of the spine is not troublesome meanwhile. The operative morbidity and incidence of surgical complications are therefore reduced tremendously, and convalescence is shortened by many weeks. In the rare patient who is troubled by static back pain after disk removal spinal fusion may be undertaken later as a secondary procedure.

Convalescence. Two important facts have emerged from experience with surgery of the ruptured disk. The first is that, if the affected nerve root is decompressed completely by removal of all offending cartilage, postoperative complaints are minimal and of brief duration. The second is that undue concern and prolongation of convalescence under medical orders reinforce the patient's anxiety and extend the period of invalidism after operation. Today the patient from whom a ruptured disk has been removed is managed postoperatively in a manner similar to the convalescent program after appendectomy. He is allowed out of bed on the third postoperative day, a procedure which facilitates convenience of eliminatory functions. The total postoperative hospital stay varies from 7 to 10 days. The patient then returns home walking, general activities being encouraged with avoidance of stair-climbing for 1 week. Forward bending and lifting are forbidden for 3 weeks. If at this latter time the first checkup during convalescence is satisfactory, a program of back-bending and other exercises intended to strengthen back and abdominal muscles is instituted. Usually by this date the patient has no further need of analgesic medication. Desk-workers return to their usual duties 6 weeks after operation, laborers after a full 2 months of convalescence. A back-brace or corset is prescribed in only the most exceptional of instances; the average patient has no need of a brace after surgery, and it is far better to exercise muscles and ligaments that have not been used for some time than to continue inactivity of the back with further atrophy and fibrosis.

There is no doubt that when an industrial accident is held responsible for disk rupture the financial aspects of the Workmen's Compensation laws tend to prolong convalescence and disability. No matter how successfully disk surgery has been accomplished, the previous compression of a nerve root and the healing process after laminectomy must leave a physical aftermath, minor or temporary as it may be. If the patient is encouraged for financial gain to focus attention upon insignificant postoperative annoyances, the period of recovery may extend far beyond that usual in the self-employed individual, and supposedly persistent complaints may be contrived or exaggerated.

Complications and recurrence. Complications of disk surgery, aside from the rare wound infection, are few. Most so-called complications, meaning persistence of back and leg pain postoperatively, are due to inaccuracy of diagnosis or inadequacy of removal of the pathologic nucleus pulposus. If retraction of nerve roots is gentle, postoperative footdrop does not occur. Spinal fluid fistula may develop if the dura is torn and is not repaired. Post-surgical arteriovenous communication between the aorta and iliac veins has been reported rarely when too vigorous curettement of the disk has resulted in perforation of the anterior annulus fibrosus.

Late recurrence of low back pain and sciatica in 1 to 2 per cent of patients usually means rupture of another disk at a higher or lower level. Very occasionally a diseased disk will extrude more fragments of cartilage months or years later. Scarring at the place of surgical exploration, although only infrequently causative of further symptoms, will produce postoperative myelographic deformation. Clinical judgment is therefore superior to roentgenography in the diagnosis of recurrent disk protrusion, although another myelogram should be performed nonetheless.

RESULTS OF SURGICAL TREATMENT, AND PROGNOSIS

In private patients with truly pathologic protrusions or ruptures of lumbar disks complete relief from low back pain and sciatica results in 90 per cent of cases after adequate surgery. In the remaining 10 per cent of patients major or minor complaints usually not interfering with gainful employment are often due to the arthritic state or chronic neuroticism. It should be recalled that in the group of individuals with ruptured disks treated surgically conservative methods of treatment have failed. No percentile estimate of acknowledged benefit from disk surgery can be made in those patients covered by Workmen's Compensation insurance; reported figures vary from locale to locale, in part depending upon how the regional compensation law is worded. In general, it may be stated that the operative treatment of protruded or ruptured lumbar intervertebral disks has withstood the test of time and is comparable in success to the surgical therapy of abdominal inguinal hernia.

The future of the patient with a definite disk protrusion or rupture who is not treated surgically is of interest. He is fated to a continued painful or at best semi-comfortable existence in which exercise of his activities and interests must be centered about the possibility of recurrence of disabling pain, which may reappear at any time and in any place. A ruptured disk is not fatal and does not metastasize, but serious crippling of function of the back and leg is the usual consequence of a major disk protrusion which is not removed. It does not seem feasible from the physical, emotional or economic points of view to allow an individual with a ruptured disk to continue to suffer an anatomic disability which may be corrected so simply, effectively, and with permanent cure.

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DIAGNOSIS AND TREATMENT OF CYSTIC DISEASE OF THE BREASTS*

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THERE are three common lesions of the female breast in the preclimacteric and menopausal years. Two are benign, the other is malignant. The first is chronic cystic mastopathy, the second is cystic disease of the breast, and the third is carcinoma.

In 1835, Sir Astley Cooper stated, ". . . the diseases of this organ have been too much considered as being of a malignant nature; and the females that have had the misfortune to have tumors in their bosoms have often been unnecessarily submitted to an operation under the idea of the complaint being cancerous."[1] By definition, cystic disease is a benign condition of the female breast in which there are one or more macroscopic cysts which may have a thin epithelial lining or none at all with only a fibrous shell, and occurring at or near the menopause. Bloodgood,[2] Foote and Stewart,[3] and others[4, 5] have pointed out the rarity of carcinoma arising from the epithelium of a blue-domed cyst. Foote and Stewart[3] reported 2 out of 300 cancers as possibly arising in a cyst wall. In reporting a group of 250 patients with chronic cystic mastitis, Lewis and Geschickter[1] found but 1 who developed cancer. Copeland[6] reports the cancer incidence as 0.74 per cent in patients with cystic disease. Frantz,[7] in reporting her studies on autopsy material, concluded that over 74 per cent of the female population has some form of chronic cystic mastopathy. The problem, then, is the differentiation between the cyst and the malignant tumor. There is complete agreement that any localized persistent solid mass in the breast should be excised for microscopic study.[5] However, it is to be maintained that the cyst can be managed effectively, safely and simply as an office procedure.[4]

The data of this paper are based on the records of 122 patients with cystic disease of the breast (table 1). During the same period of observation 575 patients with chronic cystic mastopathy and 323 with carcinoma were treated.

TABLE 1

Indications and Results in 8 of 122 Patients Treated Surgically for Cystic Disease of Breast

Recurrence	4
Papillomas	3
Sclerosing adenosis	1
Bloody fluid	2
Carcinoma	1
Papilloma	1
Late surgery	2
Aspiration 1945	Carcinoma 1947
Aspiration 1940 Opposite breast	Carcinoma 1950

Cases followed 1 to 15 years.

The diagnosis of the breast cyst is easily made. It presents as a slightly tender or asymptomatic, single or multiple (30 per cent), sharply circumscribed mass in one or both breasts. It is mobile and shows little if any attachment or deep fixation. It is tense but occasionally slightly fluctuant. The cyst transilluminates well, at times even more clearly than the surrounding breast tissue. If blood is present in the cyst an opaque shadow is cast. The deeply lying cyst may present some diagnostic difficulty to palpation because of the overlying granular breast tissue. The average patient is in her forties. Almost half (47 per cent) are married and have had 1 or more children. About 5 per cent have an associated yellowish or slightly greenish discharge from the nipple. Nearly 50 per cent have gynecologic evidence of hyperestrinism.

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* Delivered at the First Interstate Scientific Assembly of the Medical Society of the District of Columbia and the Medical Society of Virginia in Washington, D. C., November 1, 1954.

The presumptive diagnosis of cyst is thus made. The diagnosis is confirmed and therapeusis effected by needle aspiration of the mass. In over 122 patients such a procedure has been carried out from 1 to 15 times in separate cysts in 1 or both breasts. In many of the patients subsequent aspirations for new cysts have been done with excellent results and no ill effects. These patients have been followed from 1 to 15 years. The following method is used:

The mass is fixed in position by the fingers and a sharp 18- or 20-gauge needle quickly introduced. The fluid contents are aspirated into the syringe and evaluated. The cystic mass disappears except for a saucerlike excavation with smooth, regular edges. The fluid may be yellowish, clear, greenish or turbid, and occasionally even thin, sebaceouslike material is obtained. The position of the cyst, size, character and amount of fluid are charted. The patient is reexamined in 2 to 4 weeks and is taught periodic self-examination of her breasts.

The study discloses that the end-results in 95 per cent (116) was excellent; that is, no further treatment was indicated. There was no recurrence or refilling of the cyst. In 6 patients there was an indication for immediate surgery. The indications for surgery after aspiration of the cyst are:

1. Wrong diagnosis, that is, discovery that the mass is solid.
2. Incomplete disappearance of the mass after thorough aspiration.
3. Bloody fluid recovered at aspiration.
4. Recurrence or refilling of the cyst before or at the time of reëxamination in 2 to 4 weeks.

The above indications are based on the following observations: In 2 patients having bloody fluid, 1 had an intracystic papilloma, the other had carcinoma. In 4 patients in whom the cyst recurred, 3 contained papillomas and 1 was associated with sclerosing adenosis. It is of interest to note that in 2 patients who had had cysts aspirated, 1, aspirated in 1945, developed carcinoma in another part of the same breast in 1947, and the other, aspirated in 1940, developed cancer in the opposite breast in 1950. There were, therefore, 3 patients in this group of 122 who had carcinoma associated with cystic disease of the breast, but in only 1 case could it be said that carcinoma arose in the cyst. As a matter of fact, it might be argued that the cyst complicated the carcinoma.[8]

Discussion

The contention that all cysts should be excised is based on the possible danger of inherent or adjacent cancer associated with the cysts. As has been demonstrated, such a possibility, though present, is most infrequent. Although some argue that all masses, cysts or otherwise, should be excised, others maintain that, if the first excised specimen is a cyst, one may safely aspirate any future masses.[8] This is a paradox. There is no more assurance in aspirating the second, third or future cysts simply on the basis of proving by excision of the first what the condition is. The potential of a malignant tumor developing in a breast that has cysts is not changed by excising one of them. The basis for judgment is the character of the cyst, its fluid, its bed, and its future as found by careful reexamination.

Considerable importance is attached to the finding that a majority of the women are in the premenopausal years and that once through the menopause the cysts no longer appear. It is, therefore, most difficult to rationalize simple mastectomy for this disease, but it is even more difficult to understand the philosophy of those

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ULCERATIVE COLITIS*

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NONSPECIFIC or idiopathic ulcerative colitis frequently begins as an acute disease and continues as a chronic one over a period of years with remissions and relapses. It often originates in the rectum and progresses in a retrograde manner to involve the entire large bowel, abruptly stopping at the ileocecal orifice.

Ulcerative colitis was described by Wilks in 1875 and later termed colitis gravis by Schmidt. At the present time it is not considered to be the same disease as the right-sided or segmented colitis, which extends distally and was described in 1930 by Bargen and Weber. Nor is it considered to be related to the idiopathic disease of the small intestine, terminal or regional ileitis or enteritis, which was described by Crohn in 1932. However, Crohn and Janowitz[1] state that 5 per cent of patients with ileitis have an associated chronic ulcerative colitis. It is not to be confused with the colitis caused by amebiasis, bacillary dysentery, tuberculosis, lymphopathia venereum, mercury poisoning, uremia, or avitaminosis.

Etiology

Ulcerative colitis is uncommon, although I have seen no figures on its incidence. It has no known geographic limitations. It occurs in all age groups, but more commonly between 20 and 40 years. It affects both sexes about equally, perhaps more females. It is unusual for the disease to occur in more than one member of a family. It is not infective or transmissible, does not produce immunity in the patient, and has not been reproduced in animals.

Many causes and theories have been advanced, but the etiology of ulcerative colitis remains unknown. The theory of infectious origin has implicated numerous organisms, including the diplostreptococcus isolated by Bargen in 1930. Some of the numerous organisms have been considered to be secondary invaders rather than causative agents. The possibility of viral origin has been suggested but not proved.

Neurogenic and psychogenic factors have been thought to play an etiologic role. Emotional disturbances, tension states, and psychic trauma have been related to the onset and exacerbations of the disease. Some patients have been considered to have unstable personalities.

Storsteen, Kernohan and Bargen[2] have rather recently demonstrated a three-fold increase in the number of ganglion cells of the myenteric or Auerbach plexus in cases of ulcerative colitis. The extrinsic nerve supply to the colon is (1) inhibitory, through the postganglionic sympathetics of the lower thoracic and lumbar regions which follow the blood supply to the colon, and (2) motor, through the preganglionic parasympathetics of the vagus and pelvic nerves. These motor fibers of the vagus and pelvic nerves synapse with the ganglion cells of the Auerbach plexus which coördinate muscle fiber activity and prevent muscle contractions into knotty spasms, as is seen in Hirschsprung's disease in which there is absence of ganglion cells. The authors theorized that perhaps some persons are endowed with more ganglion cells, or possibly that underdeveloped nerve cells of the myenteric plexus enlarge to become ganglion cells.

In the most recent address by the chairman of the American Medical Association's Section on Pathology and Physiology, Thomas[3] offered some anatomic and physiologic explanations for the theory that psychic stimuli might influence gastrointestinal disease. The extrinsic and intrinsic nerve supply to the colon controls functional and secretory activity and blood supply. The vagal and sympathetic fibers act upon the cells of the intrinsic plexus by releasing acetylcholine and epinephrine at their terminals, and the intrinsic plexus in the bowel wall is thought to be part of a local sensory reflex mechanism from the bowel; therefore, vagal and sympathetic action is influenced distally by chemical release and by a local reflex mechanism. The hypothalamus is the control center of the autonomic nervous system and coördinates emotional expression and has connecting nerve tracts with other parts of the brain; hence, vagal and sympathetic action upon the colon may be influenced centrally in the hypothalamus by psychic stimuli from other parts of the brain.

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* Read before the Medical Arts Society in Washington, D. C., February 10, 1955.

Other etiologic theories of ulcerative colitis have included allergies, nutritional deficiencies, lymphatic obstruction, production of proteolytic and mucolytic enzymes, lack of protective enzymes in the bowel wall, and metabolic and hormonal disorders. Warren and Sommers[4] have recently made a pathologic study of 300 specimens to demonstrate the difference between ulcerative colitis and regional ileitis. They suggest that emotional and enzymal imbalance may be an etiologic factor, because abnormal mental states are fairly common in patients suffering with ulcerative colitis, and disturbed emotions are known to activate proteolytic enzymes in the blood.

PATHOLOGIC FEATURES

There is only slight change in the gross external appearance of the colon, except for the loss of haustrations and the lengthwise shortening. There is also very little change in the mesentery of the colon and its regional lymph nodes. The striking change is in the mucosa, which is red and purple with multiple ulceration and pseudopolyposis. Crypt abscesses develop, rupture at their bases, and dissect beneath the mucosa, destroying its blood supply with resultant sloughing and ulceration. The ragged, intact islands of remaining mucosa appear as pseudopolyps. The process is exudative and reparative without granulomatous tendencies. Warren and Sommers[4] reported vascular occlusion with infarction in only 10 per cent of their cases, and these were the more severe ones. The transverse, descending and sigmoid portions of the colon were involved in 80 per cent, and the cecum, ascending colon and rectum in 60 to 75 per cent. Rarely was the disease restricted to the right side of the colon (1.7 per cent).

SYMPTOMS AND COMPLICATIONS

The onset of ulcerative colitis may be insidious or acute, and the disease continues over many months or years with remissions and relapses. Kirsner and Palmer[5] report that radiologic examination shows regression in only 10 per cent of cases, progression in 25 per cent, and no progression in 65 per cent. These authors found that in 50 per cent of 120 patients the duration of symptoms exceeded 5 years and that in 25 per cent the disease continued for 10 to 20 or more years.

The patient develops diarrhea, tenesmus, and abdominal cramps. The stools are frequent and watery at first and later become foul and contain blood, pus, and mucus with little fecal material. There are fever, anemia and weight loss, and in children retardation of physical development. There follow fluid and electrolyte loss, and nutritional and vitamin deficiencies. The abdomen is tender along the course of the colon. The patient becomes irritable and fretful and appears to have a wasting disease. Proctoscopy is done with great care under direct vision in order not to perforate the friable wall of the bowel. The rectal mucosa appears inflamed, granular and edematous, and bleeds easily at first, later showing numerous small ulcerations. In X-ray examination the colon may appear to have a hazy or indistinct outline in the early stage of the disease. Later there is loss of haustrations with lengthwise shortening, rigidity and constriction, often called the "lead-pipe colon." Polyposis may be demonstrated as the disease continues.

Numerous and varied systemic complications of ulcerative colitis have been reported. Among them are arthritis, nephritis, endocarditis, hepatitis, fatty infiltration and cirrhosis of the liver, pancreatitis, thrombophlebitis, dermatitis, iritis, amyloidosis, and splenomegaly. Faulty function of the colon leads to anemia, dehydration, electrolyte loss, nutritional deficiency and avitaminosis.

The complications directly related to the diseased colon are abscess, internal fistula, perforation with peritonitis, stricture, obstruction, hemorrhage, perirectal abscess and fistula, polyposis, and carcinoma. Kirsner and Palmer[5] report the incidence of carcinoma in ulcerative colitis to range from 0.65 to 10 per cent, averaging 2 to 3 per cent, which is higher than the normal incidence of 0.6 to 0.8 per cent. Polypoid changes were reported in 50 per cent of those who developed carcinoma. The development of malignancy occurs in cases of 10 to 12 years' duration. The carcinoma is highly malignant and often multicentric in origin, and its incidence increases with the duration of the ulcerative colitis. The onset of the carcinoma is very difficult to detect, because the signal symptoms—blood, alteration of bowel habit, and obstructive pain—are confused with the symptoms of ulcerative colitis. Ripstein[6] gave the incidence of perforation of the colon to be 8.4 per cent (12 cases) in a series of 142 patients. Most of these perforations were through ulcerations and in association with malignant and fibrous obstruction, but in 2 cases perforation had been due to a sigmoidoscope. Kleckner[7] reported the incidence of internal fistula to be 3 per cent in 425 cases over a period of 10 years (1940–1950). Warren and Sommers[4] stated that in the specimens they studied 40 per cent of the deaths had been caused by complications, some general and some directly related to the colon.

Foster and Cohen[8] collected from the literature reports of 170 patients and added 19 patients of their own in whom ulcerative colitis and pregnancy were associated. In 75 to 80 per cent of the reported cases the women had ulcerative colitis prior to pregnancy. Most of the patients developed exacerbation of the colitis between the third and fifth months of pregnancy, but the mortality was low and the percentage proceeding to term was about the same as for women without ulcerative colitis. In 20 to 25 per cent of the cases the patients developed ulcerative colitis during pregnancy or during the puerperium; in this group the colitis was severe or fulminating in 20 to 85 per cent, and the mortality rate was 11.2 to 15.7 per cent. There has been no explanation of the adverse effects of pregnancy on ulcerative colitis. It has been advised that women with ulcerative colitis should avoid pregnancy, unless the disease has been in remission for a long time.

Treatment

The medical treatment of ulcerative colitis is symptomatic and must be adapted to the patient's needs during the different stages of the disease. It may include rest, hospitalization, attentive nursing care, bland and nonirritating diets, sedatives, antispasmodics, narcotics, anticholinergic and antisecretory drugs, chemotherapy, antibiotics, ACTH and cortisone, transfusions, and psychotherapy. Attention must be paid to nutrition, hydration, electrolytes and vitamins. Many other types of medications have been attempted, but most of them with very little success. Kirsner and Palmer[5] think that medical management is indicated in 80 to 90 per cent of cases.

The surgical treatment of choice today is ileostomy and total colectomy, including removal of the rectum. Procedures which have either been discarded or are being further investigated are appendicostomy, cecostomy, segmental resection of involved colon, ileoproctostomy, ileostomy alone, vagotomy, and pelvic autonomic neurectomy. Kirsner and Palmer believe that surgery is indicated in 10 to 15 per cent of cases.

At the Lahey Clinic[9] 40 per cent of patients were handled by surgical measures, and Warren and McKittrick[10] treated 50 per cent of their cases surgically.

The principal indications for surgery are the complications that are directly related to the diseased colon, namely, perforation, hemorrhage, obstruction, polyposis, carcinoma, and extensive perirectal infection with fistula formation. Some authors also consider intractable disease, acute exacerbation, and some of the systemic complications, such as arthritis, indications for surgical intervention.

In children Gross[11] takes a conservative view in the surgical treatment of ulcerative colitis and does not consider ileostomy to be an irrevocable step. In some instances he has later closed the ileostomy and reëestablished colonic function. He states that the time and criteria for closure of an ileostomy are vague and poorly defined and can be determined only by careful and thorough follow-up studies. In a few cases the ileostomy functioned for 10 to 15 years before it was closed. In other patients colectomy with or without removal of the rectum was required.

In adults most surgeons feel that ileostomy should be permanent and followed by removal of the diseased colon and rectum. Garlock[12] stresses that the pre-sacral plexus should be preserved to prevent impotence. Preservation of the rectum or anal canal with anastomosis to the ileum has not met with success. This rather extensive surgical program has been performed in staged operative procedures over a period of 3 to 6 or more months. In recent years the tendency has been to reduce the number of procedures and shorten the period of time of surgical treatment. This has been done by combining the colectomy with either the ileostomy or with the abdominoperineal resection of the rectum. Some surgeons have completed the entire surgical program at one operation. As in other conditions the surgical management of the ulcerative colitis patient should be individualized. Some of the complications, as perforation and uncontrollable hemorrhage, demand extensive operative procedures at great risk to the patient.

The ileostomy should not be located near a bony prominence. McBurney's point has been a favored location, but some British surgeons[13] prefer to place it to the right of the umbilicus. The terminal ileum should be positively identified and the end-type stoma is preferable to the loop-type. In a study of 210 ileostomy patients over a 20-year period (1930–1949) Warren and McKittrick[10] found that ileostomy produced remission of the disease in 66.6 per cent and no remission in 23.9 per cent, with 9.5 per cent of patients dying of complications. Their total mortality for ulcerative colitis was 17.6 per cent. Of the fatalities, 45.9 per cent were due to peritonitis, hemorrhage, toxicity, and disease not checked by ileostomy. Some patients succumbed to hemorrhage, perforation, and peritonitis without gross perforation after ileostomy had been performed. They attributed 37.8 per cent of deaths to conditions related to the operation of ileostomy, such as stomal dysfunction, pulmonary embolism, and pneumonia.

The complications of ileostomy may be enumerated as follows: skin irritation and ulceration, prolapse, fistula (superficial to, or below the skin level) with abscess, wound separation, obstruction due to stomal contraction or retraction, para-ileostomy hernia, electrolyte imbalance, and condylomatous warts.

Various technical procedures have been suggested to eliminate some of these complications. Allowing sufficient ileum to protrude and the proper fitting of an ileostomy bag avoid skin excoriation. Suturing the mesentery of the ileum to the abdominal wall is done to prevent prolapse. A skin opening of sufficient size prevents scar contracture around the protruding ileum. The chance of fistula is minimized by not placing sutures in the wall of the ileum and by avoidance of vigorous dilations. Another procedure is to surround the 5 to 6 cm. of protruding ileum with a 1-piece, split-thickness skin graft. Black and

Sholl[14] reported 80 cases of skin-grafted stomas in which 35 had complications, but 72 ultimately developed satisfactory stomas. In 33 non-grafted stomas 21 developed complications and 23 were ultimately satisfactory. Another procedure designed to eliminate some of the complications of ileostomy is the mucosal graft suggested by Crile and Turnbull.[15] They claim that stomal dysfunction or excessive fluid loss is due to functional obstruction of the ileostomy, because peritonitis develops upon the unprotected protruding segment of ileum with associated edema, exudate, rigidity and loss of peristalsis. They advocate pulling out 2 inches of ileum, removing the seromuscular layer of the distal portion, and pulling the residual mucosal tube down over the proximal portion of the protruding ileum as a sliding mucosal graft. They reported 13 cases of this procedure in a 1-year follow-up with only 1 case of dysfunction due to too small an aperture in the abdominal wall.

While ileostomy is only one step in the rather extensive surgical treatment of ulcerative colitis, it is perhaps the most important one. The ileostomy stoma becomes the permanent orifice for alimentary excretion. It therefore behooves the surgeon to be meticulous in the performance of this step.

ILLUSTRATIVE CASE

The patient, a white woman aged 36, was first seen in the hospital on December 4, 1953. She had been employed as a secretary and bookkeeper. Her parents and 1 brother were living. She had been married 3 times; the first husband was killed in the War, the second divorced, and the third separated. There had been no pregnancies.

In October of 1952, while employed in Germany by the Federal Government, the patient became ill with colitis for which she was hospitalized 5 weeks and treated with sulfonamide drugs and cortisone. In July of 1953, upon returning to this country, a physical examination revealed only nervousness and fatigue. There had been no recurrence of the colitis.

In October of 1953 she developed a cold, headache, backache, weakness, fever and diarrhea. Her condition became worse, and she entered the hospital on October 28. The stools became more numerous (8 to 10 daily), were watery and foul and contained bloody mucus and pus. Her daily temperature varied from 101° to over 103° F. She became bedridden and lost weight and developed chills, anemia, flabby muscles, dehydration, and abdominal distention and tenderness. Sigmoidoscopy revealed edema, redness, petechiae, and multiple small ulcerations of rectal mucosa and a foul discharge containing mucus, pus, and blood. There were no perirectal infections. X-ray films demonstrated ulcerative colitis and ileus and at one time pneumonitis in the lower lobe of the left lung. The colonic outline was indistinct, and there was distention of both large and small intestines.

A number of laboratory studies were obtained. Stool cultures showed *Escherichia coli communis* and *communior*, *Proteus vulgaris*, and a few saprophytes, but no amebae or ova. Many hemograms demonstrated anemia and leukocytosis. The extreme figures were: hemoglobin, 6.0 Gm.; red blood cells, 1,800,000; white blood cells, 42,400, with a band count of 49 per cent. Sedimentation rates were elevated. Other laboratory tests revealed nothing unusual. Numerous serum protein and electrolyte estimations were required to maintain water and chemical balance.

The medical treatment had consisted of bed rest, constant nursing care, chemotherapy, antibiotics, ACTH and cortisone, diet high in protein and caloric values and low in residue, hydration, electrolyte replacement, and frequent transfusions. In mid-December (1953) the patient developed neurologic symptoms which were interpreted to be due to thrombosis at the cerebellopontine angle.

Because of the unaltered course of the disease, the development of cerebral toxic thrombosis, and severe blood loss from the colon, surgery was recommended and an ileostomy was performed on December 24, 1953. The terminal ileum was transected, and the proximal and distal ends were implanted in the abdominal wall at different locations. Within several days improvement was dramatic. The temperature dropped to normal, the blood loss from the colon ceased, and the appetite and morale improved. An ileostomy bag was applied on the fifth day, and she left the hospital 14 days following surgery. The total hospitalization time had been 6 weeks, and she had had 40 transfusions.

At home her improvement continued, except for the development of a fistula on the inferior surface of the protruding ileum above the skin level. The patient took excellent care of the ileostomy, and no skin excoriation occurred.

Colectomy was performed on March 23, 1954. The distal segment of ileum and colon were removed, including the upper sigmoid. The remaining sigmoid was implanted in the abdominal wall. The colon was purple and black with ulcerative disease and pseudopolyposis

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STERILIZATION*

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By STERILIZATION in this presentation is meant the act or process of rendering an individual incapable of reproducing, accomplished by surgical means on strict therapeutic indication and on a voluntary basis.

The incidence of sterilization for a period of 1 year on the obstetrical service of 2 of the teaching and 1 of the private hospitals in Baltimore, namely, the University Hospital, the Baltimore City Hospitals, and the Hospital for the Women of Maryland, was 1.7 per cent, 1.35 per cent, and 1.5 per cent, respectively.

Engrossing as are the considerations of eugenic and psychiatric indications, and matters of technics and anesthesia, they would lead us too far afield in the time at our disposal. Since legal implications involved in sterilization carry serious connotations, the physician must be thoroughly familiar with the laws of his state and must be protected by the accepted written consent and by appropriate consultation before performing the operation. Religious beliefs must also be respected in any discussion of sterilization.

Most authorities agree that Lungren in this country, in 1881, was the first to attempt tubal sterilization while performing a cesarean section on a patient for the second time. It would therefore appear that the modern concept of sterilization had its inception by being performed while the abdomen was open following cesarean section. According to Young,[1] Blundell in 1834 was the first to suggest that the patient should be sterilized after section. Many controversies in this field have waxed and waned since then, and even today there is no unanimity of opinion on fundamental aspects of the problem.

I believe therapeutic sterilization should be reserved for those women who are liable to become pregnant and who suffer from some organic lesion which would render pregnancy dangerous to their future health or life. Probably there has been no topic which has been the subject of such divergent opinion as that of sterilization, especially in regard to specific indications. Therefore, the physician contemplating such an operation must surround himself with all possible legal and ethical safeguards. To accomplish these ends it is suggested that the written consent of both the patient and her husband be obtained (this should include the statement that they are requesting that the operation be performed; that they are aware that the operation means that they will be unable to have children in the future; and that they waive all rights to sue for damages); that two consultants should agree in writing that this particular patient should be sterilized; and that the hospital committee on sterilization, as suggested by Pearse and Ott,[2] should approve. I do not advocate strict adherence to the following indications, since they are only a partial roster of the commoner indications listed in many papers on this subject, but I do urge careful study of each patient.

Under what circumstances should a patient be sterilized? In an attempt to answer this question I shall enumerate those conditions which I think are defensible medically. This list is by no means inclusive. First, however, let me eliminate certain points of view. If sterilization is requested merely for the convenience of permanent contraception, or for purely social or economic reasons, I believe that we should refuse. Further, I believe that the practice of performing cesarean section solely for the purpose of sterilization should be condemned, since this is not a valid indication for this major obstetrical operation. Since sterilization of the patient who has had several erythroblastotic infants is a moot point, consideration will not be given to this matter here, except to say that I do not believe this to be an indication.

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Obstetrical Indications

Following multiple cesarean sections and in grand multiparity we find the most frequent obstetrical indications for sterilization. Although there is no agreement concerning the number of cesarean sections to which a woman should be subjected, there is a general feeling that sterilization should be suggested after the third or fourth. Many writers have pointed out the progressive dangers to the mother of increasing parity, but the number of viable gestations considered safe varies in many clinics. It is suggested that a patient who has had 6 to 8 or more viable pregnancies be offered sterilization.

Among the less frequent obstetrical reasons for the operation are recurrent toxemia, habitual postpartum hemorrhage, and anomalies of the uterus not amenable to surgical correction with repeated reproductive failure.

Gynecologic Indications

Extensive cervical and/or vaginal plastic repair, repair of genital fistulae, and operations for the cure of uterine prolapse, including interposition operations, seem to comprise the group of the most frequent gynecologic grounds for sterilization.

Surgical Indications

Certain renal conditions, such as tuberculosis of the kidney, polycystic disease and ureteral transplantations, malignant tumors, particularly carcinoma of the breast, previous extensive pulmonary surgery with dangerously reduced vital capacity, and prior extensive thrombophlebitis, especially puerperal, constitute some of the surgical indications for sterilization.

Medical Indications

The field of internal medicine supplies many valid indications for the operation of sterilization. Although pulmonary tuberculosis is much less often an indication today than formerly, it is believed that those patients with extensive inactive disease with marked reduction of vital capacity should be spared further childbearing. Recent opinions in the literature seem to point to the observation that repeated pregnancies do not shorten the life of the patient with rheumatic cardiovascular disease. However, I believe that the reproductive life of those patients with serious cardiac disease of any type, especially if there has been previous failure and/or auricular fibrillation, should be shortened. The renal conditions of chronic nephritis and chronic recurrent pyelonephritis which do not respond to any of the modern antimicrobial agents provide additional reasons for permanent prevention of conception. Other medical diseases in the presence of which pregnancy would seem unwise are malignant hypertension, severe diabetes with vascular changes, severe epilepsy with deterioration, and unexplained cerebral thrombosis or subarachnoid hemorrhage.

Pregnancy is undoubtedly contraindicated in certain of the large group of neurologic diseases, hereditary diseases, and the extra-eugenic psychiatric illnesses, but time does not permit an individual listing; therefore, each patient must be intensively studied before operation is advised.

Complications

It is recognized that sterilization may have undesirable psychic effects in apprehensive, morbidly anxious, strongly religious and strongly maternal women, and this fact must be given serious thought along with consideration of the many other facets of the patient's personality before the operation is performed.

The purely physical postoperative complications which may follow any elective laparotomy may be encountered. Major accidents such as thrombosis, embolism and peritonitis while infrequent must be kept in mind in evaluating the over-all risk. Since the first two seem to be the most frequent, it may be advisable to institute routine anticoagulant therapy as a prophylaxis. The small but definite incidence of mortality associated with any elective operation simply serves as an additional warning that all patients for whom sterilization is contemplated should be selected most carefully, especially in view of the circumstances that many of them have a serious impairment in the form of the organic lesion which made subsequent pregnancy inadvisable.

PUERPERAL STERILIZATION

Since therapeutic sterilization is intended to protect the health of the patient, the ideal time must be selected for its performance. There seems to be some semblance of agreement in the literature that puerperal tubal sterilization is to be preferred because it offers a relatively simple and safe operation; it eliminates the possibility of pregnancy at that time and the conception that may occur before an interval procedure can be carried out; and it offers considerable economic advantage, since few patients remain in the hospital more than a few days beyond the usual postpartum stay. There seems to be further agreement that within the first 48 hours postpartum represents the optimum time. In the face of the more serious indications it would seem the better part of wisdom to advise the interval procedure. Thus, in regard to cardiac patients, Hamilton and Thomson[3] state, "In our opinion, the safest way to sterilize a cardiac patient, who has been delivered through the pelvis, is by tubal sterilization no earlier than three months following the birth of her infant."

Some of the contraindications to puerperal sterilization may be summarized as follows: antepartum, intrapartum and postpartum fever; extensive varices in the lower extremities and pelvis; long periods of bed rest prior to labor and delivery which may predispose to embolic phenomena; postpartum hemorrhage; any delivery more complex than low forceps or easy partial breech extraction; manual removal of the placenta; or any situation in which the patient's general condition would not warrant laparotomy even under local anesthesia.

As observed by Lock and his colleagues,[4] puerperal sterilization has the disadvantage that no secondary operative procedure should be performed in conjunction with it in order to avoid increased postoperative morbidity.

MALE VERSUS FEMALE STERILIZATION

Should a healthy man be sterilized to protect an unhealthy wife? Opinions in the literature again vary from the strongly affirmative answer in righteous indignation that such a question should even be asked to the opinion of Weinbaum and Javert,[5] "Sterilization of the husband according to his wish, for an indication in the wife, is a voluntary procedure, and may lead to a legal suit for mutilation. We are of the definite opinion that the patient with the indication should be sterilized, and not the mate." Thus it may be advised again that each case must be decided on its own merits, and the option of the sterilization of the husband or his wife must enter into the final decision. Although sterilization of the male is usually an ambulatory procedure and practically without physical risk, sterilization of the female carries with it the hazards outlined previously.

As pointed out by our psychiatric colleagues, the deprivation of his procreative powers may have psychic impact of major importance in the male. Therefore, I advise a thorough discussion with both husband and wife of all the aspects of sterilization in those cases in which permanent prevention of conception becomes a medical necessity.

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OXYURIASIS: INCIDENCE IN TWO SOCIO-ECONOMIC GROUPS OF NEGRO CHILDREN

Use of Piperazine Citrate in Therapy*

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PINWORM infestation represents one of the most common parasitic diseases in this country. The literature records considerable variation in the incidence of infection with this parasite in different parts of the world (Canada, 60 per cent; Philippines, 75 per cent; Mexico, 93 per cent; Panama, 95 per cent; Holland, 100 per cent[1]). In the U.S.A. it is interesting that various surveys have demonstrated a lower rate of infection in Negro subjects compared to the white.[1-4] Reasons for this difference in racial incidence are not clear.

In a previous communication from this institution, an incidence of pinworm infestation in predominately indigent, hospitalized Negro children of 2 per cent was reported.[5] The low infection rate was attributed to "cleansing procedures" routinely employed by the nursing staff, such as bathing, enemas, etc.

The plan of the present study is to investigate children from both institutions and private pediatric practice. We examined 637 Negro children (395 from private pediatric practice and 242 from institutions).

METHOD

The subjects used in this study were selected at random from a nursery school, a private pediatric practice, and the outpatient clinic and pediatric service of Freedmen's Hospital. The children ranged in age from 1 to 15 years. Anal swabs, using Jacob's modification[6] of Graham's method, were taken on each patient by the physician as the first procedure on admission to the hospital or during the office or clinic visit. A microscopic examination of the slides was made within 12 to 18 hours after preparation of the specimens.

The only criterion considered by us for pinworm infestation was the presence of 1 or more ova or larvae on the slide made from the anal swab. Syrup of Piperazine† was used in positive cases in the following dosages: 1–5 years—100 to 200 mg. t.i.d. (300–600 mg. daily); 5–10 years—200 to 300 mg. t.i.d. (600–900 mg. daily); 10 years and up—300 to 500 mg. t.i.d. (900–1500 mg. daily).

The patients were instructed to remain on the prescribed dose of Syrup of Piperazine for 7 days. Approximately 24 hours after completion of the above course of the therapy a repeat anal swab was taken. (The 24-hour interval was allowed for complete elimination of the drug.) The second course of the 14-day period of therapy followed a 7-day rest period. The interrupted treatment was recommended to help control reinfection from viable ova during the preliminary course of treatment. A third anal swab was taken 24 hours after the final dose of the drug to determine the rate of cure after the final phase of treatment.

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† Monopiperazine citrate in syrup form (100 mg./c.c.) was supplied for this study through the courtesy of Burroughs Wellcome & Co. (U.S.A.), Inc.

An attempt was made to obtain anal swabs on the parents and siblings of each positive case. However, we received little coöperation from the parents. All positive contacts were treated according to the above dosage and treatment schedules.

RESULTS

Of 637 children examined, 25 or 3.9 per cent were found to be infected with pinworms. Seven or 28 per cent of the positive cases were males, and 18 or 72 per cent were females. Table 1 gives the comparative data on the source and sex of the subjects. It is noted that 68 per cent of the positive cases were in the 6- to 15-year age group.

TABLE 1

Comparative Data by Sex and Source of Subjects

	Total Cases Studied		Positive Cases		Over-all Incidence, %	Sex Incidence, %
	Number	Per cent of total	Number	Per cent of total		
Total (males and females)	637	100	25	100	3.9	—
Males	354	55.5	7	28	1.1	2.0
Private	190	29.8	5	20	0.8	2.6
Clinic	164	25.7	2	8	0.3	1.2
Females	283	44.5	18	72	2.8	6.4
Private	205	32.2	9	36	1.4	4.4
Clinic	78	12.3	9	36	1.4	11.5

The incidence of pinworm infestation in private and clinic patients was 3.5 and 4.5 per cent, respectively.

Twenty-nine parents and 12 siblings of the positive patients were available for testing. Of this number, 3 parents and 1 sibling exhibited infestation by the pinworm. They were treated according to the same method as outlined for the positive patients.

All 25 patients were asymptomatic with respect to complaints usually attributed to pinworm infestation. The diagnosis was made by virtue of a routine anal swab which was taken regardless of the complaint that necessitated the visit to the private pediatrician or hospital. Anal swabs taken 24 hours after the first and second courses of treatment were negative for pinworm ova and larvae in all cases. No untoward reactions to the drug were noted.

DISCUSSION

The incidence of 3.9 per cent of pinworm infestation in 637 ambulatory Negro children from clinics and private pediatric practice is higher than the incidence (2 per cent) we reported in our former study of hospitalized Negro children. We attribute the higher incidence in the present study to the fact that a large portion of the subjects were ambulatory and not subjected to the cleansing procedures routinely practiced in the hospitalized children.

It is noteworthy that the incidence in both of our studies involving Negro children is low when compared to reports in American white children (Cram[2]—41.9 per cent in white, 15.5 per cent in Negro; Bumbalo et al[1]—40 per cent in white, 10 per cent in Negro). The reasons for the racial difference in susceptibility are not clear.

We found no statistically significant difference in the rate of infection between private and clinic patients. This finding is compatible with the observations of other investigators who found that environmental hygiene does not seem to influence significantly the incidence of infestation. The incidence of infection in girls and boys was 3 to 1 respectively (6.4 per cent for females and 2.0 per cent for males). However, other investigators[7, 8] have found no sex predilection in pinworm infestation. We have no explanation for our observation of a higher incidence in females.

The fact that most of the cases were in the 6- to 15-year age group is in keeping with most reports which stress the higher incidence of oxyuriasis in school age children.

PIPERAZINE THERAPY

Many forms of treatment have been used in the past, i.e., papain,[9] garlic,[1] egressin,[10] diphenan,[11] gentian violet,[11] terramycin,[11] and many others.[12, 13] For various reasons, each of these drugs has failed to achieve universal approval. Some are ineffective; others lack palatability; some dosage forms (tablets and pills) cannot be easily administered to infants and small children, and still others are costly. Our own experience with piperazine citrate indicates that the drug is effective and easily administered to infants and small children, and is economical.

Its effectiveness in Ascaris infestations[14] makes it doubly advantageous, since many parasitic infestations are multiple.

No untoward reactions to piperazine occurred in our series. However, giddiness, lack of coordination and difficulty in focusing vision have been reported in a few instances.[15]

SUMMARY

An investigation of pinworm infestation in 637 Negro children from both private pediatric practice and institutions (hospital, clinic and nursery school) was made. The incidence in private pediatric practice and institutions was 3.5 and 4.5 per cent, respectively. This small difference is not statistically significant. The incidence in the males and females was 2.0 and 6.4 per cent, respectively. Most of the positive cases were distributed in children of school age (6 to 15 years).

Piperazine citrate appeared to be effective and was easily administered to infants and small children, and we observed no untoward reactions. By virtue of the ease of administration, palatability and low cost, it represents a valuable addition to the therapeutic armamentarium for pinworm treatment.

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President's Page

HEALTH FAIR

A Health Fair for the District of Columbia is now in the formative stage. At a luncheon meeting sponsored by the Board of Trade and the Medical Society, held on May 12, the Health Department, the Junior Chamber of Commerce, the Health Section of United Community Services, the Washington Heart Association, and a number of other groups were represented. The meeting was addressed by Mr. George B. Larson, Assistant Director of the Bureau of Exhibits, American Medical Association, who described Health Fairs held in other cities and offered suggestions in regard to the organization and presentation of one in Washington.

The Fair contemplated here is an ambitious one and will require the coöperative effort of all organizations directly interested in health, as well as industrial and commercial organizations. Since health of employees is important to the latter, they will no doubt welcome the opportunity to exhibit their health and accident prevention programs.

Our Annual Scientific Assembly can no longer accommodate a large public health exhibit, nor is it possible under the circumstances to arrange for the public to view it. The Health Fair will be on a far more ambitious scale and in a more convenient location for most citizens. Aside from exhibits there will be motion pictures and health talks.

Our Society can go a long way in carrying out its obligation in public health education through the Fair. An unusually fine opportunity will be afforded to present programs with a positive approach to health. Among other things there will be demonstrations of disease prevention as well as authoritative therapy in both acute and chronic illnesses. These aspects of maintenance of good health are a continuing program and the Health Fair might well be a precedent to the establishment of a health museum. Such an institution situated in Washington would have national significance.

Needless to say, the Society will need the active support and interest of its entire membership in undertaking this project.

Preston A. McLendon

Editorials

FULL PAYMENT BY BLUE SHIELD

The service benefit principle is the keystone of the whole Blue Shield movement. It is necessary to its full development. It is the only means by which true prepayment for health services can be achieved. Without service benefits Blue Shield must wither and shift its form of operation towards that of commercial insurance with consequent loss to the medical profession of a voice influencing control.

What is this principle which is as important to Medical Service locally as to Blue Shield nationally? In simplest terms service benefit is the agreement that Blue Shield's payment for the specified service is payment in full.

Since Medical Service was organized primarily to offer the most help to those in the lowest income brackets, income levels were established below which service benefits were given. For income levels to have any honest meaning they must be high enough to cover a significant segment of the subscribers to the Plan. Also, as economic changes are developed, income levels must change for them to continue to have the same meaning. For example, our present $3,000.00 individual income level actually covers only 14 per cent of Government employees. If the proposed general pay raise is effective, only about 10 per cent will be covered. Any plan which actually gives a valuable benefit to only 1 subscriber in 10 is actually in a status of shaky pretense.

On the strong ground that the fee schedule is below average physician charges, since it was intended for those below the stated income levels for service benefits, physicians properly retain the right to make extra charges to patients above those levels. In exercising this right, however, two serious problems arise:

1. The Grievance Committee is concerned with occasional cases of large extra charges to subscribers who are only a few dollars above the stated income level. For these few patients the benefits of the Plan are largely nullified and all other physicians and their patients suffer harm. All must recognize the need for extra charges to bear a realistic relation to the amount of extra income enjoyed by the patient.

2. Since the right to make extra charge is dependent upon exact determination of the subscriber's income status, it has been periodically suggested that Medical Service should obtain this information for the physician. In this connection each previous study has led to the conclusion that keeping current information on all subscribers would be prohibitively expensive. Also it could be that the physician who suspects his patient's statements might also suspect Medical Service. All in all, it still seems that the one most interested in such information is the proper one to obtain it, when it is wanted. In addition there is still available the arrangement made several years ago, by which a credit rating may be quickly obtained for a nominal sum in any questionable case.

If it is fair for the public in general to receive and enjoy bigger incomes, it is equally fair for this same advantage to be available to physicians. Elevation of the fee schedule is the proper means by which Medical Service can aid in this respect. However, since all possible income now

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

is returned in the form of fees, no schedule change is possible without changing premium rates also. Any raise in rates must be associated with modified benefits so that subscribers will remain at least as well off as they are now. Only by a balanced scale of changes for both physicians and their patients can these problems be honestly and equitably solved by Medical Service.

All of this is in keeping with the proper traditions of medicine. The good physician knows, and all who take a mercenary view of medicine must realize, that it is a noble profession only when its members are dedicated to serve patients first.

Donald Stubbs, M.D.
President, Medical Service of the District of Columbia

PROBLEMS RELATING TO INDIGENT MEDICAL CARE

At the present time there is no satisfactorily comprehensive program for the complete care of the medically indigent in the District of Columbia. There have been several attempts in the past to formulate such programs, but these have been uniformly unsuccessful primarily because of lack of coördination or because the interests of the indigent patients were actually of secondary consideration. The need for the development of a complete-care program is not only desirable at the present time but is actually imperative. The municipal hospital is grossly overcrowded in certain areas, so that it is exceedingly difficult to continue to offer medical services of the highest quality and adequately supervise the work of the house staff. On the other hand, there is a paucity of indigent patients in private institutions, and their house physicians are not receiving the experience and teaching they require. Still another important consideration is the planned relocation of several hospitals within the District of Columbia.

This inequity between public and private facilities reflects a lack of coördination which is also evident in other areas. Even the various public agencies responsible for indigent care, and departments within some of the agencies, fail to integrate their activities so that at present only "lip service" can be given to the concept of total patient care. The development of an ideal program has been further limited by the lack of essential statistical data.

The development of a complete program must begin with a reasonably accurate knowledge of its requirements. Only statistics derived from existing records of the various agencies providing medical care and Public Assistance, however scattered, can give information as to the number of indigent patients, the geographical location of such patients, and the illnesses from which they suffer. There must obviously be a corresponding evaluation of existing hospital facilities to ascertain whether capacity, location, equipment and staff are adequate to satisfy the needs of a particular patient.

In order to participate in a complete care program it is not enough for a hospital to supply outpatient services alone (except for certain specialties which rarely require hospitalization of the patient). The best interests of the patient are not served when an exacerbation of his disease or an incidental illness necessitates his admission to a hospital which has not been giving him outpatient care and whose staff is not familiar with the many nuances of his condition which are never entered in clinical records. The house staff also suffers when it cannot participate completely in his care; therefore, in institutions qualified for indigent medical care there should be a specific allotment of beds always available for the indigent.

It is equally irrational to assign a patient for diagnostic study or treatment to an institution which may not possess specialized facilities indicated in the particular case. Staff deficiencies must be looked upon from the same standpoint. Certainly it would be unwise to assign a large share of participation to an institution which does not have adequate full-time personnel to provide requisite care.

Besides classification of existing facilities, it is essential that the eligible patient be evaluated in order to determine optimum disposition. Except in emergency situations, one or more diagnostic screening centers should be established in order to estimate further diagnostic and therapeutic requirements. This and other information, when supplied to an evaluation board comprising representatives of the welfare, health, and rehabilitation departments, will permit them to ascertain the needs of the patient and of his family, the proper facility for his care, and his rehabilitation potentialities.

It is essential that a satisfactory unit record system be established so that the various agencies contributing to the care of the patient can be adequately informed of his status. Moreover, occasional changes in the facility to which the patient may be assigned require that his records accompany him in order to avoid unnecessarily expensive, or even harmful, duplication of diagnostic and therapeutic procedures. Finally, such records are necessary in order to maintain current statistics which can detect or predict those trends which might indicate changes in the program.

The necessity for coördinated activity of public departments should be evident. The great majority of patients requiring the services of the proposed program will be those suffering from chronic diseases, and because of their longevity, it will no longer suffice to provide only for their medical needs. Certainly an ambulatory patient cannot be restored to optimum health nor can a patient discharged from a hospital maintain his improvement unless his housing and nutritional needs are at least minimally adequate. Similarly, rehabilitation potentialities and requirements of such patients are often reasonably evident from the outset, and unless corrective measures are instituted as early as possible, an unnecessarily expensive and sometimes irremediable delay will occur and may be the factor which permanently consigns the patient to welfare rolls. Failure to evaluate and to remedy all the needs of the indigent patient perpetuates and pyramids the costs of partial care so that it may far exceed those of complete rehabilitation.

It must be obvious that only if a program is organized primarily to meet the needs of the indigent patient can it avoid the pitfalls of disproportionate emphasis upon its subdivisions. For example, if the educational value of patient material is the primary consideration, attention to his social welfare and complete rehabilitation would obviously be deficient.

Only by intelligent and coöperative planning can a total patient care program be organized for the medically indigent of the District of Columbia.

Joseph F. Fazekas, M.D.
Elizabeth H. Hill, M.D.

TALKING—A FAULT OR A VIRTUE?

Many people talk a lot, and often have said little "if and when" they finish. This is just as true of physicians as it is of non-medical individuals. This verbal diarrhea can be most annoying, especially when frequently or habitually repeated.

However, there are physicians who don't talk enough, and at times this fact creates a very real problem. During the past two years more than three fourths of the valid complaints coming before the Grievance Committee have been caused by the physician who doesn't talk enough. Specifically, the physician has not talked enough about the medical care being given or planned for the patient, and not enough about what this care will cost. And in consequence, the patient complains bitterly—because he or she doesn't understand.

There is the patient who complains that he went to the physician "just to get my blood pressure checked," and ended up with a careful survey including all of the known relevant procedures. He didn't complain that he received poor care, but he did complain that he had "a lot of unnecessary stuff done," and "it cost me four times what I thought an examination would." He is bitter about his experience.

Another patient went to see about "a little stiffness in my joints" and ended up with a two-hour history and physical examination as well as much laboratory work, and many X-rays. His natural reaction was, "What do a basal metabolism test and a lot of blood examinations have to do with my arthritis?" And, "Why was it necessary to take so many X-rays, especially when some of the same ones were taken only last year?" So, another patient is upset, because he doesn't understand.

A third complainer went to the physician because of some indigestion, and, before ever seeing the physician, had several laboratory procedures done. She then had a "superficial" examination and treatment was outlined, all in the course of 40 minutes, and subsequently she received a bill much larger than she had anticipated. She was upset because she thought she had been subjected to a poorly considered laboratory "routine" and was asked to pay more than the service was worth. The result—another patient "unsold" on the private practice of medicine.

The Grievance Committee, in considering these complaints and many like them, thought that usually the physician had rendered careful and justified medical care, and that, more often than not, the charges were not out of line in relation to the work done. But the patient didn't understand, and the Committee found it difficult to make these complaining patients understand after the breach of confidence had occurred.

What should we, as physicians, do? Talk more! At least shake the patient's hand and say that certain laboratory tests will be done first. Take a few minutes to explain why certain seemingly unrelated examinations are necessary. Explain why a thorough study is important (if it is) rather than a superficial check-up. And finally, and most important of all, give the patient some idea of what it's going to cost, early in the game. Of course, you can't tell them the exact amount, but they should know whether it's going to cost about $10.00, $25.00, $100.00, or $250.00. It's not fair to let a patient run up a bill for which he has had no reasonable explanation or warning.

Of course, it's difficult for the doctor to "talk money" to patients: "It's just not the thing to do." "It's not professional." "It's embarrassing." Sure, it's most all of these things, and it isn't easy. However, it seems only fair that the physician (preferably) or his secretary inform the patient of the reasons for the examination and treatment, and what the probable cost will be.

Let's be selfish for a moment. What does the physician gain from a friendly and frank discussion of these medical and financial matters? First, he gains and retains a pleased patient (and one who gets well faster). Second, he may avoid the nuisance and unpleasantness of a complaint to the Grievance Committee. Third, he may avoid the real hazard of a lawsuit (and lawsuits start from such small beginnings at times). And finally, he and the rest of the medical profession may avoid the constantly recurring complaint, "Well, if such costly and impersonal medical care exists under private medicine, I'd just as soon have socialized medicine."

So—let's talk it over with our patients.

F. D. C.

PROCEEDINGS OF THE ANNUAL BUSINESS MEETING

The Annual Business Meeting of The Medical Society of the District of Columbia, held on May 4, 1955, was well attended, approximately 125 members being present. Dr. Preston A. McLendon, President of the Society, presided. The Society voted to accept, without reading, the "Annual Reports of Officers, the Executive Board and the Board of Censors for 1954–1955" which had been mailed to members previous to the meeting.

Dr. Wallace M. Yater, Chairman of the Executive Board, read the Supplementary Report, which is published in this issue following the summary of proceedings. The report was approved in toto.

Annual Report of the Chairman of the Executive Board

Chairman Yater in his Annual Report gave a brief summary of the principal activities and actions of the Executive Board during the past year. Not included were routine matters such as finances, disposition of membership problems, and various administrative procedures.

Included among the more important actions taken by the Board were the following, many of them initiated by the various committees after careful study:

Registered opposition to transferring inspections relating to health and sanitation from the Health Department to a national agency, but despite opposition from the Medical Society and other organizations, the Commissioners directed that this transfer be made.

Approved the poliomyelitis study proposed by the National Microbiological Institute.

Supported the American Psychiatric Association in efforts to amend state medical practice acts with relation to psychologists.

Recommended that an educational program be developed to inform the public regarding dangers of nontherapeutic abortions and the availability of public medical assistance in emergency cases.

Approved the action of the D.C. Chapter of the American Academy of Pediatrics in establishing an educational center at Children's Hospital for the prevention of accidents and poisoning of children.

In view of notification from the American Medical Association that seals of acceptance would no longer be issued to physician- or lay-sponsored prepayment medical plans, the Board requested the Committee on Medical Care to review the Society's policies with respect to future approval by the Society of lay-sponsored plans.

Supported the District of Columbia Board of Pharmacy on its stand that vitamins are medicinal and should not be taxed as food.

Endorsed resolutions adopted by the Medical Advisory Committee of Region 2, Federal Civil Defense Administration, regarding a Medical Civil Defense Program.

Approved a suggested school health program in the District, an important feature of which would be a complete physical examination of children attending school for the first time.

Endorsed efforts of the Medical Service of the District of Columbia to obtain a Congressional Charter.

Commended President McLendon for his activities in connection with the transfer of the Vocational Rehabilitation Program from Federal to District jurisdiction.

Offered the coöperation of the Society and the services of its telephone exchange to the District of Columbia Chapter of the American Red Cross in the conduct of the medical phase of its disaster program.

Approved in principle the recommendations of the Subcommittee on Maternal and Child Welfare that data on all neonatal deaths in Washington hospitals be collected and evaluated by a special Committee on Fetus and Newborn, the recommendations of such a Committee to be sent to the Executive Board for approval and then transmitted to each hospital committee dealing with this problem.

Approved the establishment of a Doctors' Symphony Orchestra.

Promised the Society's coöperation in a census undertaken by the District Health Department of the tuberculosis cases in the District of Columbia.

Sponsored a series of television programs with the District Health Department over Station WMAL-TV.

Approved the organization of a Council on Scientific Programming to coördinate the programs of various medical organizations in the District of Columbia, with the purpose of avoiding conflicting dates and duplication of subject matter.

Approved a closer liaison between the Grievance Committee and the Committee on Professional Liability Insurance. Voted to withhold endorsement of any insurance company carrying physicians' liability insurance.

Approved use of the Salk vaccine provided it was properly licensed by the National Institutes of Health; such licensure, contingent upon a favorable report by Dr. Thomas Francis, Jr. in April, to be followed by a canvass of the membership for volunteers to assist in the vaccine program in the District public schools.

Physicians Wanted for Army Dispensary

Civilian physicians are wanted in the United States Army Dispensary at Fort Myer, Arlington 11, Virginia. Physicians who are interested can arrange for an interview by calling Mrs. McWhorter, Jackson 2-3000, Extension 2112 or 2119.

Voted whenever practicable to publish in full the news letter of the Council on Federal Medical Services in the Medical Annals of the District of Columbia.

Dr. Yater presented to the Society for permanent membership 72 Active, 30 Associate, 1 Affiliate, and 2 Resident-Intern members who had been elected for a probationary period of one year.

The Chairman reported, with regret, the death of 21 members of the Society during the past year. They were: Drs. Caryl Burbank, Hugh J. Davis, Depue Duffy, Harry A. Fowler, William C. Gwynn, Ernest E. Hadley, Arthur J. Hall, Russell K. Hollingsworth, Harry Hurtt, Lyman F. Kebler, Robert A. Keilty, Charles O. Knott, S. Arthur Linde, Marvin McLean, Leo Brison Norris, Jorge Ramirez, Maynard J. Simmons, Siegfried Speyer, Alvin R. Sweeney, Frederick Yates, and the Reverend Paul A. McNally.

Chairman Yater commented on the faithfulness of members entrusted with official responsibility. "With very few exceptions," he said, "they have given unselfishly of their time and effort with no other thought than to advance the best interests of the Society. To them the Society owes a deep debt of gratitude."

REPORT OF THE SECRETARY

The Secretary opened his report by stating that the past year, in many ways, had been the most satisfactory in several years. As to the decision to broaden the field of the Society's activities, progress will become evident in the next several months. Time must be allowed for the orientation and training of additional personnel and for rearranging the administrative set-up. The Secretary is looking forward to the future, confident that the Society will continue to be progressive and will play an even more important role in the community's health.

STATE OF THE SOCIETY

Membership in the Medical Society is still increasing. The membership as of May 1 for the past 10 years is shown as follows:

	1945	1950	1955
Active	946	1,299	1,386
Life	67	75	77
Associate	213	325	464
Honorary	9	18	24
Affiliate		12	19
Resident-Intern		7	20
TOTAL	1,235	1,736	1,990

It is noted that the greatest increase is in Associate members, attributed to the migration of physicians in recent years to suburbs in nearby Maryland and Virginia.

Membership luncheons were held at more frequent intervals than in 1953–54 because of a larger backlog of new members. As of April 1, 1955, 7 luncheons had been held which were attended by 140 members, compared with 3 luncheons for last year with an attendance of 65. Those who attended these luncheons have been uniformly enthusiastic.

The financial report was presented at the March business meeting of the Society and copies of the report are available at the Society's Executive Offices to any member who may be interested in seeing them.

ACTIVITIES OF THE SOCIETY

Perhaps the most significant innovation in the past year was the First Interstate Scientific Assembly, a joint project of the Medical Society of the District of Columbia and the Medical Society of Virginia, held at the Shoreham Hotel, November 1, 2, 3, 1954. It was the first time that these medical societies had joined forces in sponsoring an annual meeting and the first time the District Medical Society had abandoned its annual meeting to meet with any other organization.

The Assembly from every standpoint was a most satisfactory undertaking. Its success was attributed in a large measure to the organization experience of the General Chairman, Dr. Ralph M. Caulk. By example, he created a spirit of friendly coöperation between the co-chairmen and members of committees representing both organizations. The program was unusually excellent and the numerous social events were without exception successful. Of the total registered, 3,128, 841 were District and 717, Virginia physicians. Of the remainder, 472 were visiting physicians, residents, and interns, while 1,098 represented dentists, nurses, technicians, exhibitors, and invited guests.

The meeting itself was on a much larger scale than those sponsored by the societies individually; e.g., there were 42 scientific exhibits as compared to 25 at the District Medical Society's 1953 ASSEMBLY, and 88 technical (commercial) exhibits as against the local ASSEMBLY's 49.

The Fourth Midwinter Seminar was held in the Medical Society's building on February 15, 16, 17, 1955. This year's subject, "Recent Advances in Clinical Diagnosis and Management of Diseases of the Nervous System," drew a good attendance, not quite as large as the previous seminar. Dr. Louis K. Alpert, Chairman of the Program Committee, which is responsible for the Seminar, appointed Dr. Francis M. Forster, one of the Committee members, to select the subject and speakers.

Following the lead of the 1953–1954 Program Committee, this year's Committee continued monthly meetings, to which physicians and their wives were invited. The kind of programs presented are indicated in the following list: October, Nostrums and Quackery; November, District Narcotic Regulations as They Affect Physicians; December, Prevention and Treatment of Disability; January, Competitive Sports for Grade and High School Students; March, Soil Conservation.

The single outstanding program of the year was the one on March 2, in connection with the business meeting of the Society. Dr. Alfred A. J. Den, Chairman of the Committee on Professional Liability Insurance, addressed the Society on "Malpractice—The Hazard of Modern Medical Practice."* Dr. Den's Committee is making a thorough investigation of the malpractice situation and will soon submit recommendations to the Society for its consideration.

The Committee on Public Information initiated a new project, April 13, which was the Medical News Conference. The program consisted of a panel discussion on "What Is Legitimate Medical News?" in which three representatives of the press and three representatives of the medical profession participated. The papers presented by the speakers will appear in a future issue of the MEDICAL ANNALS.

At its annual meeting, January 14, 1955, the Editorial Board of the ANNALS decided to publish a new series of scientific review articles under the direction of Dr. Thomas M. Peery. The House Officers Essay Contest, under the direction of the editor, Dr. Wallace M. Yater, and previously approved by the Executive Board, was outlined at this meeting and will continue throughout 1955, with essays to be in the hands of the editor by March 1, 1956.

In his report the Secretary commented on the high estimation in which the ANNALS is held nationally. It is still considered one of the best medical journals in the country. The circulation figures for 1954 as compared to 1953 show a small increase in both membership and paid subscriptions.

Last year the Secretary reported in considerable detail on the expansion of the MEDICAL BUREAU, which was completed in 1953. Time has amply justified the considerable investment in time and money which was necessary. An analysis of the calls handled by the BUREAU in 1954 as compared to 1953 showed 9 per cent increase in the number of messages taken for physicians and 36 per cent increase in referrals.

On March 1, 1955 the BUREAU had 736 physician-subscribers (361 to Alternate Listing Service and 358 to Telephone Secretarial Service, 17 of whom have two lines). On March 1, 1954, there were 746 physician-subscribers (385 to Alternate Listing Service and 347 to Telephone Secretarial Service, 14 of whom had 2 lines). It is interesting to note that in Washington the Secretarial Service is gradually gaining subscribers over Alternate Listing Service.

Enrollment in MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA has continued at a rapid pace. At the close of 1954 there were 461,095 enrolled as compared to 404,034 in 1953. On March 1, 1955, there were 1,377 Participating and 367 Coöperating Physicians, a total increase of 64 over 1954. Income from subscribers' dues, before operating expenses, increased from $4,606,220.44 in 1953 to $5,090,993.79 at the end of 1954. Operating expenses were 9.1 per cent of subscription income in

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* See April issue of the MEDICAL ANNALS, p. 205.

1954; this was .2 per cent above 1953, the increase attributable to outlay for advertising in lay publications. The Secretary continues as Secretary of the SERVICE, a office he has held since the Plan was organized.

Enrollment in the Doctors Group in Group Hospitalization was 3,633 (physicians and dependents) on March 1, 1955 as compared to 3,541 on March 1, 1954. This increase was brought about by the considerable number of new members, who, with few exceptions, sought the coverage offered by Group Hospitalization, Inc. A sufficient number applied for the Preferred Plan to insure the Society group's acceptance.

Reports received from members who have taken advantage of the Society's Health and Accident Group Plan, written by Mutual of Omaha, are most favorable. On its part, Mutual of Omaha is more than pleased with the response and coöperation of Society members. Last year, the Secretary reported that 948 members were participating in the Group. This number has been increased as of April 1, 1955, to 960.

The Question Hour, mentioned in the last two annual reports, was repeated for the third time at the District of Columbia General Hospital on April 21, 1955. The Secretary was again moderator. Enthusiasm for this type of program apparently has not waned.

ACTIVITIES OF THE SECRETARY

As in the past, the Secretary participated in a number of "extracurricular" activities. Upon relinquishing his position as Secretary-Treasurer of the Conference of Presidents and Other Officers of State Medical Associations, he was elected to its Executive Committee. He has been appointed Chairman of the Committee on the Costs of Health Services of the Family and Child Welfare Section of the United Community Services. The task of this committee is to provide data for the guidance of welfare agencies on the costs of health services. The Secretary has continued as Lecturer on Medical Economics at the Georgetown University School of Medicine. He conducted six classes in the spring and the same number in the fall of 1954.

He was moderator of a panel discussion during AMA's PR Institute in Chicago, September 1 and 2, 1954. The AMA's Public Relations Advisory Committee, of which he is presently a member, meets at frequent intervals in Chicago.

On April 29, 1955 he addressed participants in the 1954–1955 Graduate Training Program at Garfield Memorial Hospital on "The Business Side of Medical Practice."

The Secretary closed his report by acknowledging his indebtedness to the number of physicians who have given generously of their experience in organization work and their exceptional talent to the Society in the past year. He expressed his appreciation not only to officers and committee members but to all members who have over the years been considerate and helpful. He also expressed his appreciation to members of the administrative staff for their loyal and tireless efforts.

ELECTION OF OFFICERS

The nominees for office, presented to the Medical Society by its Nominating Committee at the business meeting, March 2, were presented to the Society by the President and were unanimously elected. The new officers are:

President-elect: Ralph M. Caulk
First Vice President: Milton M. Greenberg
Second Vice President: Dorothy D. Dowd
Member of the Executive Board: Preston A. McLendon
Members of the Board of Censors: James A. Dusbabek and Charles P. Ryland
Delegate to the American Medical Association: Hugh H. Hussey
Alternate Delegate to the AMA: Victor R. Alfaro

Dr. William Ross Morris, President-elect during 1954–1955, will take office as President of the Society on July 1, 1955; Dr. Caulk, on July 1, 1956. With the exception of the delegates to the American Medical Association, officers begin their terms of office on July 1, 1955. Dr. McLendon will serve for four years on the Executive Board. Dr. Dusbabek will serve on the Board of Censors for three years, and Dr. Charles P. Ryland, who was elected to serve in place of Dr. Caulk, the new President-elect, will complete the latter's unexpired term of one year. The delegates, Drs. Hussey and Alfaro, are elected for a two-year period beginning January 1, 1956.

Following the election of officers, Dr. Caulk was escorted to the platform by Dr. Morris. Dr. Caulk expressed his appreciation to the Society for the honor accorded him, stating that during the coming year as President-elect, he would familiarize himself with the Society's Constitution and By-laws in order to execute his obligations to the membership and to the public, vested in the office of president, with "a modicum of efficiency."

At this time, Dr. Yater returned to the platform and complimented Dr. McLendon, the outgoing President, on the superb job he had done in his office as well as on his histrionic abilities as demonstrated in a number of TV programs. As Chairman of the Executive Board, Dr. Yater presented Dr. McLendon, on behalf of the Society, an inscribed gavel as a memento of his year of office and as an expression of affection of the members. Dr. McLendon, in accepting the gavel, spoke his appreciation to those who had participated in committee activities and to the entire membership for the good will and coöperation extended him during his year of office.

REPORT OF THE BOARD OF CENSORS

The Chairman of the Board of Censors described again in his report the procedures for screening applicant members established several years ago. Applications must first be read at a business meeting of the Society, after which they are referred to the Board of Censors. Some time during the next two months applicants are interviewed and the Board determines whether or not the individuals applying are qualified for membership. The Board submits its findings to the Executive Board, which usually elects those recommended for a probationary year. At the end of the probationary year, members must be elected by the Society itself. Since May 1, 1954 the Board of Censors had interviewed 83 applicants for Active, 26 for Associate, and 6 for Resident-Intern membership. Most of these applicants have already been recommended for election to membership.

In determining the applicant's qualifications for membership letters are written to medical societies to which the applicant has previously belonged to ascertain his professional standing and membership status. If he has served with the armed forces he is required to provide photostats of documents showing that he was honorably discharged. These are some of the procedures followed by the Board to assure the Society that only the highest type physicians are elected to membership.

PANEL DISCUSSION ON ADMINISTRATION OF POLIOMYELITIS VACCINE

Following the business session a topic of current interest, "The Administration of Poliomyelitis (Salk) Vaccine," was presented to the members for discussion. Dr. McLendon introduced the subject, following which Dr. A. B. Price, Regional Medical Director for Public Health Service, discussed the administration of vaccine from a national viewpoint. Dr. Daniel L. Seckinger, Director of the Department of Health, District of Columbia, gave a brief résumé of the report presented by Dr. Thomas F. Francis at the special meeting called on April 12 at Ann Arbor, Michigan, when the results of the Salk vaccine survey were made public for the first time. Dr. Seckinger's report on that meeting was published in the May issue of the MEDICAL ANNALS. Dr. George Maksim, Chairman of the Committee on Public Health of the District of Columbia Medical Society, was the final speaker. He emphasized the necessity for a calm appraisal of the new vaccine by the medical profession and the need to educate the public not to expect that the vaccine will be 100 per cent effective. He expressed his appreciation to the doctors for the voluntary help given by them in the School Health Program.

Following the presentation a number of questions from the floor were answered by the panel participants. Dr. McLendon closed the meeting on the note that he hoped he could count on the Washington doctors to do their part voluntarily in the orderly distribution of the vaccine to the proper age groups so that Federal control of the administration of vaccine need not be instituted.

SUPPLEMENTARY REPORT OF THE EXECUTIVE BOARD

This supplementary report includes for the most part matters dealt with by the Executive Board subsequent to the completion of the annual reports. However, there were a few items contained in the Report of the Chairman of the Executive Board which are enlarged upon here for the purpose of clarification. All require action by the Society.

Labor Medical Center. At a business meeting on March 5, 1952, the Society approved a medical care program for members of the Laborers' Union which included the establishment of a clinic later to be known as the Labor Medical Center. This action was taken upon the recommendation of the Committee on Medical Care and the Executive Board. The Committee's recommendation followed many conferences with Union officials and a careful investigation to make certain that the beneficiaries, who were of the lowest income group, would receive the best quality of medical services. The following steps were agreed upon:

1. That a Medical Advisory Committee to the Laborers' Union, consisting of members of the District Medical Society and the Medico-Chirurgical Society, Inc., be appointed immediately.

2. That this Committee submit several names of physicians to the Laborers' Union who are qualified and acceptable from a professional standpoint to serve as the Union's medical director.

3. That the medical director, with the assistance of the Medical Advisory Committee, proceed to develop an adequate medical care program for the Laborers' Union.

4. That a clinic be established for Union members and their dependents, the clinic to be staffed and operated in a manner approved by the Medical Advisory Committee. Where Union members or their dependents desire to do so, they will be permitted to obtain medical services from a private physician, such services to be paid for by the Union.

In the light of reports that the Center has never operated in the manner agreed upon, the Society's Committee on Medical Care, late in December and the early part of this year, directed several communications to Mr. Arthur Peisner, Business Manager of the Laborers' District Council, inquiring about the Center's present status. The data requested were not furnished.

Subsequently a letter was written to Mr. Leo Nazdin, President of the Laborers' Council, at his solicitation, requesting the information desired. From the data furnished by him it appears that the Center is not operating in accordance with the Union's agreement with the Society. It was noted especially that the stipulated Medical Advisory Committee had not been appointed.

The Committee at its meeting on March 11 therefore voted to recommend to the Executive Board that the Society's approval be withdrawn until all conditions of the original agreement between the Society and the Laborers' District Council are complied with. This recommendation was approved by the Executive Board at its meeting on March 28, 1955. Under date of March 30, 1955, Mr. Nazdin was notified of the action taken by the Board.

Election of Rear Admiral Bartholomew W. Hogan to Honorary Membership. Admiral Hogan was proposed for Honorary membership at the March business meeting of the Society. At that time the Society was informed that Admiral Hogan had succeeded Rear Admiral Lamont Pugh, who is also an Honorary member, as Surgeon General of the Navy.

Admiral Hogan is a graduate of Tufts College Medical School, where he was awarded the Phi Lambda Kappa Medal for highest achievement. He was appointed a Lieutenant (j.g.) in the Medical Corps of the U. S. Navy in 1925 and advanced through grades to the rank of Rear Admiral.

He had a distinguished career through World War II and was awarded the Silver Star and Navy and Marine Corps Medal for heroism. Since the War he has commanded the U. S. Naval Hospital, Mare Island, California, the Naval Medical School and the U. S. Naval Hospital at Bethesda, served as Fleet Medical Officer and Chief of Staff for Medical Matters to the Commander in Chief, U. S. Pacific Fleet. Prior to becoming Surgeon General he was Deputy and Assistant Chief, Bureau of Medicine and Surgery.

With the approval of the Board of Censors the Executive Board is pleased to recommend Admiral Hogan's election to Honorary membership.

Dr. William S. Middleton Proposed for Honorary Membership. At its meeting on February 28, 1955, the Executive Board voted to propose Dr. William

S. Middleton, Chief Medical Director of the Veterans Administration, succeeding Dr. Joel T. Boone, for Honorary membership.

Dr. Middleton received his medical degree from the University of Pennsylvania in 1911. The following year he joined the staff of the University of Wisconsin School of Medicine as an Instructor of Clinical Medicine. He was successively Assistant Professor, Associate Professor, and from 1935 to February 1955 when he retired, Dean. Presently Dr. Middleton is on leave of absence as Professor of Medicine at the University of Wisconsin.

He is an overseas veteran of both World Wars and has been associated with the veterans medical program in a variety of part-time consultive capacities. During World War II he was the chief consultant in medicine in the European Theater of Operations. He was discharged as a Colonel, a rank he still holds in the U. S. Army Reserves.

Dr. Middleton was one of the original members of the VA Special Medical Advisory Group established by law soon after World War II. At the time of his appointment as Chief Medical Director of the Veterans Administration, Dr. Middleton was a member of the national VA Medical Advisory Committee on Education and Chairman of the Dean's Committee affiliated with the Wisconsin VA Hospital.

In compliance with the requirements of the Society's Constitution and By-laws, Dr. Middleton's Honorary membership is proposed at this meeting and will be voted upon at the next business meeting, which will be held on a date to be selected in October.

Major General Silas B. Hays Proposed for Honorary Membership. General Hays was recently confirmed by the Senate to succeed Major General George E. Armstrong as Surgeon General of the Army.

General Hays received both his Bachelor of Science and medical degrees from the University of Iowa. After a year's internship at Letterman General Hospital he received his commission as First Lieutenant in the Medical Corps, U. S. Army, in 1929. He graduated from the Army Medical School, the Medical Field Service School, and the Army Industrial College.

General Hays has been assigned to Letterman General Hospital, California; Tripler General Hospital, Hawaii; Walter Reed Army Hospital and Soldiers' Home in Washington; and the New York General Depot, Brooklyn. During World War II he served as Chief of Medical Supply in the European Theater of Operations. Subsequently he was Surgeon, Pacific Area and Surgeon, Japan Logistical Command. For his services in the latter assignment he received the Distinguished Service Medal. He has also been awarded the Legion of Merit and the Legion of Merit with Oak Leaf Cluster. The French Government awarded him the Croix de Guerre with Palms and the Order of Sante Publique for services rendered during his tour of duty in Europe.

For the past four years General Hays has been Deputy Surgeon General of the Army.

As required by the Constitution and By-laws, this proposal will be referred to the Board of Censors for approval and then submitted to the Society for a vote.

The National Blood Foundation Plan, which the Board now submits for the Society's approval, was adopted by the American Medical Association, the American Red Cross, the American Hospital Association, the American Society of Clinical Pathologists, and the American Association of Blood Banks during the past year. A committee made up of representatives of each organization was appointed in February of this year to take the necessary steps to put the plan into operation.

The National Blood Foundation was subsequently incorporated under the laws of the State of Illinois as a nonprofit corporation. Two representatives of each of the above organizations have been appointed as trustees serving as the Board of Governors of the Foundation.

The purpose of the Foundation is to establish a national blood program which will assure an adequate supply of blood and blood derivatives to civilian and military population. Its functions, as described in the committee's report, are:

> "To develop ways and means to make blood and its derivatives available to all persons in the United States; to stimulate and advise on areas of research in the collection, preservation, and use of blood and its derivatives; to collect, study and disseminate information on blood and blood derivatives; to establish minimal standards for voluntary accreditation of blood banks and to establish a means of inspection for accreditation; to coördinate existing systems and encourage and institute plans where necessary for the exchange of blood or blood credits between accredited banks on a state, regional and national basis; to encourage the

public through appropriate means to donate blood for civilian and defense requirements and to assist in the establishment of uniform national publicity policies; to disseminate annually a list of blood banks accredited by this organization; to serve upon invitation as a fact-finding and arbitration body in disputes arising from the collection and use of blood and its derivatives; to serve upon invitation as an advisory group to Federal and military agencies having to deal with blood and its derivatives."

The American Medical Association and the American Red Cross have agreed to share equally a large part of the Foundation's budget with the remaining organizations contributing whatever they feel they are able.

The Society's Committee on Blood approved the National Blood Foundation Plan at its regular meeting on February 26, 1955. Upon being informed of the Committee's action the Executive Board gave its endorsement of the Plan by adoption of the following motion:

> That the Society approve the stand of the American Medical Association in support of the National Blood Foundation Plan as recommended by the Committee on Blood of the Society.

Recommendations of the Section on Ophthalmology. Representatives of the Section appeared before the Executive Board at its meeting on April 18, 1955, to urge support for a resolution dealing with the efforts of the American Optometric Association on behalf of its members to exclude "all others from the field of visual care, including the ophthalmologist."

Attention was called to resolutions adopted by the Association at its 1954 meeting in which the following statements appeared: "that it is the stated policy of the American Optometric Association . . . that the field of visual care is the field of optometry and should be exclusively the field of optometry" and "that the individual state associations are recommended to make serious study of the optometry laws prevailing in their states to the end that exemptions be restricted, limited and ultimately eliminated."

In view of the American Optometric Association's position and the legislative activities of its affiliated state associations, the Society's Section submitted to the Board for approval a resolution which it had adopted recommending to the American Medical Association's Section on Ophthalmology that a committee on legislation be appointed "for the purpose of safeguarding the public from restrictive legislation designed to deprive the public of adequate medical eye care." Also set forth in the resolution are what the Section considers the essentials of the committee's program and the legal assistance required to implement it.

The Board approved the resolution in principle and, if endorsed by the Society, will request its delegates to the AMA to introduce a resolution in the Association's House of Delegates at Atlantic City in June.

Substitution of District of Columbia Day at the Annual Meeting of the Southern Medical Association in Washington, November 12–15 for the Annual Scientific Assembly in 1956. This proposal was submitted to the Board at its meeting on February 28, 1955. Action was withheld until it could be ascertained if officials of the Southern Medical Association would be receptive to the proposal on the basis that the first day of the Association's convention be designated District of Columbia Day and the scientific program on that day be planned and largely presented by Washington physicians.

On March 28 the Board was notified that the Executive Committee and the Council of the Southern Medical Association were favorably inclined to the proposal. The Board thereupon voted to recommend to the Society the substitution of District of Columbia Day at the Annual Meeting of the Southern Medical Association for the 1956 ANNUAL SCIENTIFIC ASSEMBLY.

The Board is of the opinion that this action is advisable because of the proximity of the dates on which the ASSEMBLY and the Association meetings would be held. If both organizations went through with their plans each would suffer in attendance, lack of support from commercial exhibitors, and needless duplication of program material. On the other hand, a joint effort, under the conditions proposed, would be beneficial to the Washington medical profession and assure the success of the Association's first Washington meeting.

Recommendations re Procedure to Be Followed by Committee on Professional Liability Insurance. Members who were present at the business meeting of the Society on March 2, 1955, will recall that at the suggestion of the Board action was deferred on the following recommendation of the Committee on

Professional Liability Insurance because of its possible legal implications:

> That a definite procedure be established [for the Committee] and a written record kept of [its] proceedings.

At a special meeting of the Board held on March 14, 1955, Dr. A. A. J. Den, Chairman of the Committee on Professional Liability Insurance; Mr. Warren E. Magee, the Society's legal counsel; and Mr. H. Mason Welch, Attorney for the United States Fidelity and Guaranty Company, were present to discuss the above recommendation. With full acquiescence of the attorneys present the Board voted unanimously to approve written records being kept by the Committee on the basis that they be limited to selected items appearing on a list submitted by Dr. Den.

In response to Dr. Den's inquiry as to the Board's concept of the Committee's functions, the Board voted that the Committee be informed it was its duty:

> To review claims involving alleged malpractice against members of the Society and submit its recommendations to insurance carriers.
>
> To sponsor educational programs among physicians in regard to the malpractice situation and how it can be improved.
>
> To negotiate with insurance carriers in an effort to obtain more adequate coverage at reasonable premiums.

Adoption of Amendment XXVI to the Constitution and By-laws Changing the Subcommittee on Mental Health to the Committee on Mental Health. As required by the Constitution and By-laws, the following amendment was presented at a business meeting of the Society on March 2, 1955, and is now submitted to you for a vote:

AMENDMENT XXVI

Section 1. Article I of Chapter VIII of the Constitution and By-laws is hereby amended by adding thereto the following: 11. Committee on Mental Health.

Section 2. Chapter VIII of the Constitution and By-laws is further amended by adding thereto the following: Article XIII. The Committee on Mental Health shall initiate and carry on such studies and activities relating to mental health as the Committee or the Society may suggest or direct.

The purpose of the above amendment is to raise the Subcommittee on Mental Health to full committee status in line with the suggestion made by the American Medical Association to all state medical societies.

Conclusion. Plans are going forward rapidly for the 25th ANNUAL SCIENTIFIC ASSEMBLY, which will be held at the Hotel Statler, Washington, October 10, 11 and 12, 1955. Not only are members assured a program of the usual high standard, but the ASSEMBLY's Silver Anniversary will be marked by a number of special events. The Board urges every member to set aside the days on which the ASSEMBLY will be held now and if possible to plan to be present at all scientific sessions.

Respectfully submitted,
WALLACE M. YATER, M.D., *Chairman*
KARL C. CORLEY, M.D.
HUGH H. HUSSEY, M.D.
PRESTON A. MCLENDON, M.D.
WILLIAM ROSS MORRIS, M.D.
HERBERT P. RAMSEY, M.D.
R. LOMAX WELLS, M.D.
THEODORE WIPRUD, *Secretary*

CHANGE IN DISTRIBUTION OF GAMMA GLOBULIN

Dr. John R. Pate, Chief, Bureau of Disease Control, met with the Committee on Public Health on March 24 and explained that gamma globulin is now being obtained from the American Red Cross instead of the Office of Defense Mobilization. The allocation by the Red Cross to the Department of Public Health represents a very drastic curtailment, so that only 8,000 c.c. will be available to the District of Columbia during 1955. Since this limited supply necessitates some restriction in the distribution of gamma globulin, the Committee on Public Health recommends, with the concurrence of Dr. Pate, that gamma globulin be available without cost for:

1. The prevention of measles in exposed children 2 years of age and under. This may be obtained by the physician or his representative who will submit the name, age and address of the patient to whom it is to be administered.

2. The prevention of German measles (Rubella) and infectious hepatitis in patients of any age only after consultation between the private physician and Dr. Pate or his representative. Availability of gamma globulin for such cases will be determined by individual circumstances as well as by adequacy of supply. An adequate supply cannot be guaranteed either by the Health Department or the Red Cross at all times.

In view of the fact that gamma globulin is now readily available through commercial channels and that the supply available through the Department of Public Health is very limited, the understanding and coöperation of all physicians will be necessary.

Gamma globulin may be obtained from the office of the Division of Preventable Diseases, Room 6150, Municipal Center, 300 Indiana Avenue, N.W., National 8-6000, Extensions 2128 or 2129. If any questions or situations arise pertaining to the use and availability of gamma globulin, further information can be obtained by calling the Medical Society's Executive Offices, District 7-3111.

George Maksim, M.D.
Chairman, Committee on Public Health, The Medical Society of the District of Columbia

BOOK REVIEWS

Peripheral Vascular Diseases, 2nd ed. Edgar V. Allen, B.S., M.A., M.D., M.S. in Medicine, F.A.C.P., Section of Medicine, Mayo Clinic; Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota; Diplomate of the American Board of Internal Medicine; Nelson W. Barker, B.A., M.D., M.S. in Medicine, F.A.C.P., Section of Medicine, Mayo Clinic; Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota; Diplomate of the American Board of Internal Medicine; Edgar A. Hines, Jr., B.S., M.A., M.D., M.S. in Medicine, F.A.C.P., Section of Medicine, Mayo Clinic; Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota; with associates in the Mayo Clinic and Mayo Foundation. Price, $13.50. Pp. 825, with 316 illustrations, 7 in color. Philadelphia: Saunders, 1955.

This volume is the last word on this subject, having been written by three outstanding authorities. It is properly dedicated to George E. Brown, a pioneer in the field of peripheral vascular diseases at the Mayo Clinic. Thirteen other members of the staff of the Mayo Clinic contributed to the book. The volume is well illustrated by 316 beautiful figures, 7 in color. The book is slanted toward the clinician more than to the investigator, and it is highly recommended to all practitioners who must deal with the problems of peripheral vascular disease.

W. M. Y.

A Ciba Foundation-Symposium: The Kidney. Arranged jointly with the Renal Association. A. A. G. Lewis, B.Sc., M. D., M.R.C.P., Editor for the Renal Association, and G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., Editor for the Ciba Foundation. Assisted by Joan Etherington. Price, $6.75. Pp. 333, with 125 illustrations. Boston: Little, 1954.

This book consists of the proceedings of a symposium on the kidney held from the seventh to the tenth of July 1953. Members of the symposium were selected for their eminence in study of various aspects of renal function and disease.

Twenty-two papers were presented and discussed. The papers were grouped under the following headings:

Structural and Functional Relationships in the Kidney; Tubular Functions Other than Regulation of Acid-base Balance; Renal Share in the Regulation of Acid-base Balance; General Problems of Electrolyte Excretion; and Renal Share in Volume Control of Body Fluid.

No general conclusions were drawn though several papers indicated the need to consider kidney function as the sum of the functions of individual nephrosis. This book will be useful to those studying the kidney or especially interested in its diseases.

Robert L. Guillaudeu, M.D.

A Ciba Foundation Symposium: Hypertension—Humoral and Neurogenic Factors. G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Margaret P. Cameron, M.A., A.B.L.S., Editors. Assisted by Joan Etherington. Price, $6.75. Pp. 294, with 73 illustrations. Boston: Little, 1954.

This book consists of material presented and discussed during a three-day symposium, from the twenty-seventh to the thirtieth of July 1953. Thirty-three members of the symposium were selected from many countries. Papers present studies elucidating various aspects of hypertension in animals and humans. The studies are distributed throughout the field of hypertension, perhaps with emphasis on factors in hypertension in experimental animals.

This book will be useful to those studying hypertension or especially interested in it.

Robert L. Guillaudeu, M.D.

ANNUAL MEETING OF PARTICIPATING PHYSICIANS OF MEDICAL SERVICE

The Seventh Annual Meeting of Participating Physicians of Medical Service of the District of Columbia was held in the auditorium of the Medical Society on April 26, 1955. Nine Trustees were elected to membership on the Board, to serve with 6 others whose terms were continuing. Of particular interest to Participating Physicians in attendance was the report of Dr. Donald Stubbs, President of Medical Service, who reviewed some of the activity and actions of the past year, and outlined certain critical problems facing the Plan, with comments on their solution. Following the presentation of reports, and the election of Trustees, open discussion was held on certain subjects presented by the Board of Trustees with regard to expansion of benefits and changes in fees and income ceilings. Various problems and suggestions of Participating Physicians in attendance were presented for review or referral to the Board. Highlights of the President's Report, which includes the Board's outline of possible expanded coverage, follow.

HIGHLIGHTS OF PRESIDENT STUBBS' REPORT

This is a review of activity and actions of the last year and a statement of certain critical problems with comments on their solution.

Board of Trustees. Increased from 11 to 15 members to give wider and more balanced representation with more functional diversity in committees, your Board of the past year has been notably responsive and considerate of professional relations. I can assure you that you have more control of this Plan than you think you have, and this fact is of the utmost importance to all physicians of the area.

Charter for Medical Service. Progress is being made in the necessary task of procuring a Congressional Charter to define with authority the status of our Blue Shield Plan.

Home and Office Care. Although this phase of our operation is costing $2\frac{1}{2}$ times as much as expected 3 years ago, it is leveling off and becoming a valuable source of information in planned expansion.

In-Hospital Medical Care. The development of our pilot program in this field has in the last 2 years taught us several things:

1. A continuing effort is needed to keep a clear understanding of demarcation between Blue Cross and Blue Shield especially in relation to Ancillary or Related Medical Services. Long negotiations with physicians and hospitals were held last year on this point.

2. A program of this type must be made available to practically all subscribers instead of only a small percentage for the test to be fair and reliable.

3. Expansion of medical coverage is necessary to effective operation by our Plan.

Procedural Development.

1. Trial coverage of X-ray and laboratory services rendered within 5 days of admission for a related surgical procedure has been authorized and is in effect.

2. When a subscriber is paid directly by Medical Service instead of payment being made to his physician, an explanatory note is included with the communication to the subscriber.

3. The suggestion that physicians rendering "ancillary" services be required to submit Physician Service Reports over their own signatures is still under negotiation with the affected groups.

4. In connection with the problem of multiple insurance coverage, the Board has decided that the new contract should eliminate the "service benefit" to "under income" subscribers who are indemnified as a result of negligent injury. Other forms of multiple coverage are still under study to find an equitable adjustment in benefit.

5. The request for extension of "hospital status" to cover a wider variety of services in certain qualified clinics is under study by the Board. A suitable accreditation system involving a third party as an accrediting authority is being sought.

Podiatry. The complaint of the Washington Podiatry Society that Medical Service is acting in restraint of trade in limiting coverage to services of doctors of medicine is still on file in the Department of Justice. There have been no new facts to persuade your Board that it should volunteer to change our contractural obligations to all subscribers on this point. It would seem that we cannot approach a solution to this and certain related problems as long as the restraint of this situation imposes inactivity upon us.

Education. Educational efforts to consolidate our position were strongly advocated last year. The use of proper local advertising media for this purpose has undoubtedly produced many intangible benefits and is beginning to show measurable advantage. This program will be vigorously pursued.

It must be borne in mind, however, that the conscious efforts of all physicians to inform themselves and also their patients is the most valuable aspect of any educational program we could devise.

Expanded Coverage. The demand for expanded coverage is the outstanding problem before us as well as nearly all other Blue Shield Plans today. Its relation to the prospective needs and desires of Federal employees under a governmental participation in cost is especially important to us. An outline of this problem with suggested forms of action that conform to the general thinking of your Board is attached to this report.

Philosophy. Medical Service, Washington's Blue Shield Plan, was organized by our physicians as a prepayment plan to furnish medical service especially to the lower income groups of the entire community, with local control and low operating cost, while preserving free choice of physician by the patient. The service benefit principle, accepted by physicians to guarantee full coverage of all fee schedule items to the low income groups, is the keystone of the Blue Shield idea. Ultimate success will depend upon the degree of idealism and dedication in the profession and their active participation in public education. Patients must know that the doctors of their free choice prefer and support this Plan.

Objectives. Expanded coverage to meet more nearly the public desire and need is the first order of business. Earnest effort by all physicians to understand the true relations of Blue Shield to free enterprise in medical practice, and other community functions as well, must be the prelude to a continuing movement to educate all patients to these facts. Recognizing that giving service benefits to a significant segment of the community is the price we pay for continuing control in this program, we must not surrender our fee schedule on these same terms to any other group, be it union welfare, private insurance, or any other institution.

With these principles to guide us, our course is clear. Because our heritage is one of dedicated idealism and service we will follow this course. Only by saving others can we and will we save ourselves.

EXPANDED COVERAGE

The need for additional coverage by Medical Service has been brought about by:

1. *Public demand.*—There has been continued evidence of public demand for increased coverage under our program, and it is apparent that many people feel that the present program is inadequate. All our contacts with subscriber groups attest to this.

2. *Commercial competition.*—Commercial insurance companies have no limitation with regard to the variety of benefits which they can write into a contract, and they are often in a position to write a contract which suits the public demand or the employer's choice with regard to the variety of services covered, even though such coverage is limited. Business is thereby written which would otherwise be written by Blue Cross and Blue Shield.

3. *Closed panel competition.*—This creeping encroachment upon the private practice of medicine is gaining favor in the West and Midwest, and is moving eastward under the auspices of organized labor. A group of local labor unions may often band together to establish a clinic which will provide a great variety of diagnostic and preventive medical services by salaried physicians at a minimum cost to the union member. The ultimate objective is to expand the program to the point where a hospital can be purchased and surgical care provided also.

4. *Government subsidy.*—For the most part, Government employees have not been attracted to the more comprehensive prepayment medical care programs because of their high cost, and the fact that the employees must now pay the full cost of such programs themselves. It is expected that, if the Government will share the cost of prepaying comprehensive medical care, Governmental employees will be anxious to procure it. Since Government employees constitute approximately half of the enrollment of Medical Service of D. C., it is imperative that our program make available to Government employees the services which they

would wish to procure if the expense is to be shared by the Government.

In considering the extent to which the present coverage might be expanded, your Board of Trustees has recommended the following for study and implementation:

1. *Increase individual income ceiling from $3,000 to $4,000.*—The available information indicates that the individual income ceiling of $3,000 now provides service benefit coverage to less than 15 per cent of Government employees. Our enrollment representatives indicate that individual subscribers and employers have expressed the feeling that the $3,000 individual income ceiling is unrealistic and should be increased. While individual subscribers constitute only 18 per cent of our total enrollment, and an increase in the individual income ceiling would therefore affect very few, it is believed that the change recommended by the Board of Trustees would be of real value in illustrating the desire of Medical Service to provide service benefits to the community in a more realistic manner.

2. *Increase the family income ceiling from $5,500 to $6,000.*—While there are no recent figures to indicate the median family income for the Washington Metropolitan Area, a survey made in 1947 showed that the median family income for families in the Metropolitan Area who derived earnings from civilian government and private employment was $5,153. Applying the trend of increase in national family median incomes to this figure, it is apparent that increasing the family income ceiling to $6,000 would still fall short of providing service benefit coverage to half the families in the Washington Metropolitan Area who are subject to coverage under our program. In addition, some increase in the family income ceiling would seem indicated to help compensate for the general increase in national family income since 1952, when changes in income ceilings and fees were last put into effect.

3. *Increase fee schedule approximately 10 per cent.*—It is known that there have been increases in physician expense since fees were last increased, and it is recognized that increases in income ceilings should be related to increases in fees. Since all subscribers must pay for an increased fee schedule and only those whose incomes exceed the ceiling amounts receive any additional benefits therefrom, it is felt that about a 10 per cent increase in the schedule is proper at this time.

The Board of Trustees recognizes that the basic Surgical Contract should be continued in its present form, but recommends that consideration be given to the addition of certain benefits which have long been advocated by the medical profession and some subscribers. Examples of additional coverage which might be added to the basic Surgical Contract are the addition of children to the Family Contract at birth (excluding coverage for circumcision until a child is 14 days of age), the addition of benefits for congenital ailments, consideration of coverage for X-ray and radium therapy for malignancies, and coverage for diagnostic X-ray following an accident regardless of the subsequent treatment.

Other benefit provisions recommended for consideration by your Board of Trustees include an extension of the In-Hospital Medical Care coverage to provide benefits during the first 180 days of a hospital stay instead of the 27-day period during which benefits are now provided in the pilot program, and some method of providing an increased fee to a physician attending a patient during a critical illness. It is also expected that your Board of Trustees will give consideration to a program designed to provide diagnostic care in or out of the hospital on a co-insurance basis. A program which would provide major medical benefits on a co-insurance basis after the patient has exhausted the basic coverage under his Blue Cross and Blue Shield Contracts has been considered by your Board of Trustees, and this program will be studied with consultants from the various fields of medicine affected before any decision is reached.

In considering such a program it is intended that consultation will be had with representatives of those physicians who would render the contemplated service before any decision is reached with regard to the manner in which such a program might be offered to the public.

Attendance at the Annual Meeting of Participating Physicians was substantially greater than in past years, and Dr. Stubbs pointed out that the opportunity provided Participating Physicians to discuss the planning and progress of Medical Service in an open meeting is a source of great strength and character to the program, and provides the Board of Trustees with an understanding of physician attitudes and interests which is unique among Blue Shield Plans. He expressed the Board's appreciation of the interest in the Medical Service program as voiced by those physicians in attendance, and the hope that they would feel free to state their views concerning Medical Service at any and all times.

The President summed up the meeting by stating that the Board would consider carefully all of the recommendations and opinions presented from the floor, and that efforts would be made to acquaint all our physicians with the facts before asking them for concerted expression of attitude.

THE COURT CLINIC

In order to fill a long-felt need of the judiciary, law-enforcement agencies, and the medical profession, the 83rd Congress passed two laws directing the Commissioners of the District of Columbia to appoint psychiatrists and ancillary personnel, "whose services shall be available to the following officers to assist them in carrying out their duties: (1) in criminal cases, the judges of the district court and the probation officers of the district court and the municipal court, (2) such officers of the juvenile court of the District of Columbia as the judge thereof shall designate, (3) such officers of the Department of Corrections as the Director thereof shall designate, and (4) the Board of Parole of the District."

Accordingly, the Legal Psychiatric Services Division (the "Court Clinic") of the Bureau of Disease Control of the D. C. Department of Public Health was organized and began work in October, 1954, under the direction of Dr. Thomas E. Griffin. In addition to the director, the staff authorized is 1 psychiatrist, 2 psychologists, 1 psychiatric social worker, 1 secretary, and 1 clerk. The psychiatrist position is filled, part-time, by Dr. Marvin E. Perkins.

The Juvenile Court, having its own clinic, has not utilized the services of the new clinic. The other agencies designated in the law, however, had been seeking psychiatric services for many years and have received the work of the Court Clinic very enthusiastically. As a result, the psychiatrists on the staff have been overwhelmed with work, even though the agencies have referred to the Clinic only a small percentage of the persons they wish to have examined.

Until the new service was organized, there had been psychotic inmates in the Department of Corrections who had been waiting 2 years or more for examination. The psychiatrists have now testified in court hearings as to the mental state of several of these; some have been sent to mental hospitals and thus the great burden of caring for some of its psychotic inmates has been removed from the Department of Corrections.

The judges of the U. S. District Court call upon the Clinic to examine defendants to determine their competency to stand trial and to determine their mental condition at the time of the offense.

The probation officers of the District and Municipal Courts ask the Clinic for psychiatric help in the preparation of their pre-sentence reports and ask questions about motivation for the offense, the mental condition of the convicted person, whether this person is likely to commit the same offense again, whether he is a good prospect for probation, what disposition should be recommended to the sentencing judge, etc.

The Board of Parole occasionally encounters prospective parolees whose mental condition is in question and refers such persons to the Clinic for examination. The Board would find it helpful to have examinations done in many other cases and would refer many others if the Clinic staff were larger. Under the circumstances, however, they have confined their referrals largely to those who show some evidence of being of unsound mind.

The Clinic is filling, on a small scale, a long-felt need among the law enforcement agencies in the District, namely, a need for sound and unbiased psychiatric examinations, reports, opinions, and recommendations.

THOMAS E. GRIFFIN, M.D.
Chief, Legal Psychiatric Services, District of Columbia Department of Public Health

On the Lighter Side

The D. C. Medical Bowling League completed another successful season on May 26 with the annual banquet held at the Brook Farm Restaurant.

A welcome innovation of the 1955 banquet was the total absence of all speech-making. This feature was thoroughly enjoyed by everyone in attendance, including the guests of honor, the President of the D. C. Medical Society, Dr. Preston A. McLendon, and our old friend and counselor, Mr. Theodore Wiprud, Secretary of the Society.

In the absence of the Bowling League President, Dr. John W. Price, the League's able Vice President, Dr. Gordon R. MacDonald, wielded the gavel during the distribution of the trophies and prizes, besides joining in the harmonizing to the delightful tunes of Tiny Meeker and his trio.

The trophies for this season were of silver and would have created envy and covetousness in the hearts of the Ladies Auxiliary Bowling League if its members had been present. There were silver 2-tier revolving Susans for each of the members of the first place Children's team, who won 56 and lost only 28, and who, incidentally, improved so much during the second half of the season that all competition was clobbered—but good!

The second place winners, the Prince Georges team, who won 51 and lost 33, were given silver cocktail shakers and matching silver mugs-for-six. Each one of the third place Sibley #1 team, who won 49 and lost 35, received a beautiful silver covered vegetable dish. All of the fourth place Casualty team members were awarded large silver chafing dishes for winning 48 and losing only 36, and the fifth place winner, Washington Hospital Center team, each received a silver ice bucket large enough to hold all the cubes necessary for an evening of cocktails—and all this for winning 48 games and losing 36.

The "also-rans," landing feebly in sixth place by pinfall, were the Garfield team and in seventh place the Columbia team, all tied with 46 wins and 38 losses. In eighth place, with 43 wins and 41 losses, was the George Washington team; in ninth place, the Georgetown team, with 41 wins and 43 losses; and in tenth place, Suburban team, with a 40–44 record. Sibley #2, with a 39–45 wins and losses, was eleventh in the League.

The "also-also-rans" in the twelfth, thirteenth, and fourteenth and fifteenth places, respectively, were the Doctors team (33–51), Emergency #1 (31–53), Emergency #2 (31–53), and Providence, with a 28–56 record for the season.

Individual trophies of beautiful silver trays, gleaming silver pitchers and bowls, and sturdy silver cigarette boxes were awarded to the following "Pros": for high average of the League, Mr. Paul Duffy, with a 113–64; for second high average of the League, Mr. Frank Baiers of the George Washington team, with a 112–18; for third high average of the League, Dr. Francis X. Richardson of the Sibley #1 team, with a 111–3.

The individual rolling the highest set of 411 was Dr. Richardson. The second highest set of 399 was rolled by Mr. Duffy; the third highest set of 396 went to Dr. Andrew J. Betz; and the fourth highest set of 394 was achieved by Dr. Harold H. Hawfield.

The high game trophy winners were Dr. Richardson (this kid is good!) with a 166, Dr. Millard Ottman with 161, Mr. Duffy with 155, and Dr. Alvin Kay with another 155.

The high spares were tallied by Mr. Duffy with 203, Mr. Baiers with 201, Dr. Richardson with 193, Dr. Betz with 189, Dr. John W. Price with 178, Dr. Gordon MacDonald with 167, and Dr. Blaine Eig with 160.

High strike honors went to Dr. J. Earl Kadan with 53, Dr. Richardson with 52, Dr. Ottman with 49, Dr. Clyde Reeves with 48, Dr. Ray N. Brown 48, Mr. Baiers 45, and Mr. Duffy and Dr. Frederick Musser with 44 each.

The bowler of each team with the highest individual average received a handsome silver cigarette lighter in the form of a loving cup. The following bowlers were high for their teams: Dr. Alvin Kay of Children's—109, Dr. Frederick Musser of Prince Georges team—109, Dr. Francis X. Richardson of Sibley #1—111, Mr. Paul Duffy of Casualty—113, Dr. Maurice Van Kinsbergen of Washington Hospital Center—105, Dr. Duane Richtmeyer of

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News and Personals

MEETINGS

Washington radiologists were able to attend two important meetings in their field, both at the Shoreham Hotel, the latter part of April. The first was the **37th Annual Meeting of the American Radium Society,** April 21–23. Dr. Lloyd G. Lewis was co-author with Dr. Milton Friedman, New York City, of a paper on "Point Source Intracavitary Irradiation for Carcinoma of the Bladder," presented on April 22. Colonel Dwight M. Kuhns, an Associate member of the Medical Society of D. C., opened discussion of a paper by Dr. Vincent P. Collins et al, of Houston, Texas, on "Observations on Growth Rates of Human Tumors."

Dr. Ralph M. Caulk, Chief Radiologist at Garfield Memorial Hospital, was Chairman of the Committee on Local Arrangements. Dr. Murry M. Copeland was a member of his committee.

Dr. Edgar W. Davis and Dr. William B. Looney, the latter an Associate member of the D. C. Medical Society, presented papers before the **Fifth Inter-American Congress of Radiology,** April 24–29. Dr. Davis participated in a Symposium on Bronchogenic Carcinoma, April 27; his paper was entitled "Faults, Fallacies and Failures in the Management of Carcinoma of the Lung." The following day Dr. Looney read a paper on "Skeletal Roentgenographic Autoradiographic and Histopathological Findings Following Radioelement Administration." With Lt. M. Colodzin, also from Bethesda, Md., Dr. Looney presented a scientific exhibit on "Late Effects of Internally Deposited Radioactive Materials."

Dr. Frederick O. Coe, of Groover, Christie and Merritt, was Chairman of the Local Committee on Arrangements for this meeting. Serving with him were Drs. Joseph F. Belair, Ralph M. Caulk, Alfred A. J. Den, and Alvin C. Wyman. Dr. Den also served on the Publicity Committee.

Several members of the D. C. Medical Society participated in the **50th Anniversary Meeting of the American Trudeau Society** in Milwaukee, Wisconsin, May 23–27. This Society is the Medical Section of the National Tuberculosis Association. Drs. James J. Feffer, James P. Mann, and Milton M. Greenberg presented a paper the opening day on "The Physiological and Anatomical Reversibility of Emphysema in Mucoviscidosis." Dr. Feffer represents the District of Columbia on the Advisory Board of the American Trudeau Society.

A paper on "Nocardiosis—A Critical Review" was presented, May 25, under the joint authorship of Drs. J. Winthrop Peabody, Jr., Sol Katz, and Edgar W. Davis, Washington, and Drs. John H. Seabury and Howard A. Beuchner, of New Orleans, La.

Of special interest to Washington physicians were two other special lectures which were given at this meeting: "The Diagnosis and Treatment of Miliary and Meningeal Tuberculosis" by Dr. Mark H. Lepper, of Chicago, a former member of the District Medical Society, and "The Diagnosis and Treatment of Acute Pneumonia" by Dr. William S. Middleton, newly appointed Medical Director of Veterans Administration, who was proposed for Honorary membership in the Medical Society of the District of Columbia at its May business meeting.

The Annual Meeting of the American Association of Plastic Surgeons, held at the Hotel Shoreham, May 4–6, was attended by some 200 plastic surgeons from all sections of the country. Washington hosts were Dr. Robert E. Moran, Consultant in Plastic Surgery to the U. S. Air Force and National Institutes of Health, and Dr. William C. Meloy, Associate in Surgery at George Washington University School of Medicine.

Dr. Moran was elected a member of the American Board of Plastic Surgeons for a 7-year term beginning in 1956. Dr. Meloy was elected Secretary-Treasurer of the Association.

The District of Columbia Tuberculosis Association held its Annual Meeting at the Sheraton Park Hotel, May 2. Dr. R. Lomax Wells, President of the Association, presided and gave a résumé of the year's activities.

A Panel Discussion on Tuberculosis, Cancer and Emphysema—Destroyers of Man was the highlight of the program. Moderator was Dr. Carl Muschenheim, Professor of Clinical Medicine, Cornell University. Speakers on the panel were Dr. William B. Tucker, Chief of the Pulmonary Disease Service of the Veterans Administration in Durham, N. C., and Professor of Medicine at Duke University; Dr. Brian Blades, Professor of Surgery at George Washington University School of Medicine; and Dr. Ben Branscomb, of the Laboratory of Cardio-Pulmonary Diseases, National Heart Institute, Bethesda, Md.

Dr. Otis R. Farley, an Associate member of the District Medical Society, was elected to the Board of Directors. His term will expire in 1958.

Dr. James J. Feffer was elected President of the D. C. Tuberculosis Association at a meeting of its Board of Directors at the Association Headquarters, May 9. Dr. Feffer succeeds Dr. Wells, who has been the Association's President for the past 2 years. Dr. Feffer is Assistant Clinical Professor of Medicine and Director of the Pulmonary Disease Division at George Washington University School of Medicine.

Dr. Wells was named to the Executive Committee together with Dr. Howard M. Payne, Professor of Medicine at Howard University, and Attorney William Leahy.

Several District Medical Society members participated in the **101st Annual Session of the Medical Society of the State of North Carolina** in Pinehurst, N. C., May 2, 3 and 4. Dr. Hugh H. Hussey delivered an address, May 3, on "Recognition of Pulmonary Embolism." In the afternoon of the same day he was moderator for a Panel on Infections of the Heart—Diagnosis and Treatment.

Among the scientific exhibits were the following from Washington: "Hydrocortisone Creme in Dermatology," Dr. James Q. Gant; "Hysterosalpingography: Diagnostic Aid," Dr. J. B. Sheffery; "Dermabrasive Surgery of Cosmetic Defects," Dr. Murry M. Robinson; "Safe, Prolonged Muscle Relaxation in Orthopedics," Dr. Eugene G. Lipow; "Infections of the Hand," Drs. Philip A. Caulfield and Howard S. Madigan, Georgetown University School of Medicine; "External, Anterior Segment and Fundus Diseases of the Eye," Dr. Richard W. Wilkinson, Department of Ophthalmology, George Washington University.

Dr. Leonard A. Scheele, Surgeon General of the U. S. Public Health Service, addressed the annual meeting of the **Health Section of United Community Services,** May 3. His address pertained to the field of mental health.

In the election of officers of the Section for 1955–56, George C. Pendleton was reëlected as Chairman. Elected to the Executive Committee were Drs. E. H. Cushing, Albert K. Leon, George Maksim, Howard M. Payne, Alice M. Waterhouse; Messrs. John E. Donaldson, Joseph H. Grossman, Joseph W. Leverenz; and Mmes. Harold N. Marsh and Walter N. Tobriner.

The Jefferson College Medical Alumni Association met in the Medical Society's auditorium, May 12. Dr. Anthony F. DePalma, Professor of Orthopedic Surgery, Jefferson Medical College, was the guest speaker. His subject was "Treatment of Bursitis of the Shoulder."

The Jacobi Medical Society held a dinner meeting at the Washington Hotel, April 18. The guest speaker was Congressman Sidney Yates, of Chicago, whose topic was "Medicine and Politics."

A formal dinner dance was held at The Woodmont Country Club, May 14. Dr. Saul Schwartzbach was Chairman of the Entertainment Committee.

The Louis Mackall Medical Society held its 25th annual banquet at the Kenwood Country Club following an afternoon of golf. Some 160 physicians and friends attended the dinner. Mark Evans, well-known CBS radio and TV commentator, entertained with a talk on "A Little Light on Darkest Africa," illustrated with colored movies.

The Section on Neurology and Psychiatry has elected new officers. They are:

Dr. Francis M. Forster, *Chairman*; Dr. Stacy L. Rollins, *Vice Chairman*; and Dr. Desmond S. O'Doherty, *Secretary-Treasurer.*

The Washington Orthopedic Club has elected the following new officers for 1955–56:

Dr. Everett J. Gordon, *President*; Dr. John P. Adams, *Vice President*; and Dr. Marvin M. Gibson, *Secretary-Treasurer.*

GENERAL NEWS

Major General Silas B. Hays, MC, USA, became **Surgeon General of the Army** on June 1, 1955. He succeeds Major General George E. Armstrong, who is retiring from active duty in August.

General Hays, who has been Deputy Surgeon General for the past 4 years, received his medical degree from the University of Iowa in 1928. He was commissioned First Lieutenant in the Medical Corps Reserve in 1928 and received his commission in the same rank in the Regular Army the following year. He graduated from the Army Medical School and the Army Field Service School in 1931 and from the Army Industrial College in 1940. From 1940 to 1944, he served the first of two tours of duty in the Supply Division, Office of the Surgeon General, Washington, D. C. In 1944 he was transferred overseas as Chief of Medical Supply, European Theater of Operations.

Other assignments were Surgeon, U. S. Army, Pacific, and later as Surgeon, Japan Logistical Command. For the latter service General Hays received the Distinguished Service Medal. He became Deputy Surgeon General in August, 1951.

General Hays was awarded the Legion of Merit in October, 1944 by the War Department, and the Legion of Merit with Oak Leaf Cluster in September 1945 by Headquarters, United States Forces, European Theater. He also received the Croix de Guerre with Palms and the Order of Sante Publique, from the Republic of France, for services rendered to the French during his tour of duty in Europe.

General Hays is a member of the American Medical Association and the Association of Military Surgeons. At the May business meeting he was proposed for Honorary membership in the Medical Society of the District of Columbia.

General Armstrong will become the Vice Chancellor for Medical Affairs of New York University and the Chief Administrative Officer of the New York University-Bellevue Medical Center.

Brigadier General James P. Cooney has succeeded General Hays as Deputy Surgeon General of the Army. General Cooney has achieved distinction as one of the Army's outstanding authorities on radiology and the medical effects of atomic explosion. He is a graduate of the University of Iowa School of Medicine, the Army Medical School, and the Army Field Service School.

MAJOR GENERAL SILAS B. HAYS, MC, USA
New Surgeon General of the Army

Plans for a community Health Fair to be held in the spring of 1956 were discussed at a luncheon meeting, held at the Willard Hotel, May 12. The meeting, attended by more than 50 representatives of health organizations, was co-sponsored by the Committee on Public Health of the Washington Board of Trade and the Medical Society of the District of Columbia.

Dr. J. Ross Veal, Chairman of the Committee on Public Health, Washington Board of Trade, presided. Mr. George B. Larson, Assistant Director of the Bureau of Exhibits, American Medical Association, outlined the preliminary steps for such a health exhibit. Pledges of coöperation came from Dr. Daniel L. Seckinger, Director of Public Health for the District of Columbia; Mr. George B. Griffenhagen, Associate Curator of the Smithsonian Institution; and Dr. P. A. McLendon, President of the District Medical Society. In addition to Dr. McLendon, the Medical Society was represented at this meeting by President-elect W. Ross Morris, and by Theodore Wiprud, Secretary, and Lawrence A. Zupan, Assistant Secretary.

Howard University announces the appointment of **Dr. Robert S. Jason,** Professor and Head of the Department of Pathology, as the new **Dean of its College of Medicine.** He succeeds Dr. Joseph L. Johnson, who will continue on the staff of Howard as Professor and Head of the Department of Physiology. Dr. Johnson was appointed Dean in July, 1946.

Dr. Jason, who began his new duties on May 1, received his medical degree from Howard University in 1928 and has a degree in physiology from the University of Chicago.

Following the election of trustees at the April 26 meeting of Participating Physicians, the new **Board of Medical Service of the District of Columbia** met on May 3 to elect officers for the coming year. All 1954–55 officers were continued in office. They are: Dr. Donald Stubbs, President; Dr. William P. Herbst, Jr., First Vice President; Dr. G. Halsey Hunt, Second Vice President; Bruce Baird, Treasurer. Theodore Wiprud, Executive Director and Secretary of the Medical Society of the District of Columbia, continues as Secretary *ex officio* of Medical Service.

Members of the D. C. Medical Society interested in organizing a **Doctors' Symphony Orchestra** met in the Society's library, May 5. Present were:

Drs. Richard H. Todd, John P. Adams, Isadore M. Alpher, W. Montague Cobb, Samuel Dessoff, Robert C. Hill, Homer B. Matthews, J. J. B. Sebastian, Sara S. Tenenblatt, Maurice Van Kinsbergen, Mr. Donald Graff, and Mrs. Jay C. Maxwell.

A permanent organization was established with election of the following officers: Dr. Todd, President; Dr. Alpher, Vice President; Mrs. Maxwell, Secretary-Treasurer; and Drs. Adams, Cobb, Dessoff, and Tenenblatt, Directors. The first rehearsal, held on May 19 at the Gallaudet College Chapel, was conducted by Howard Mitchell, Director of the National Symphony Orchestra. He introduced the permanent conductor, Richard Wayne Dirksen, who is Assistant Organist and Assistant Choir Master at the Washington Cathedral.

Rehearsals will be held each Thursday evening throughout the year in a room over Peoples Drug Store No. 27 at 1536 North Capitol Street (entrance through store). All physicians and members of their families who play an instrument and love fine music are invited to join this group.

Dr. Daniel L. Seckinger, Director of Health for the District of Columbia, disclosed plans for organizing a bureau of mental health at a meeting in the office of District Commissioner Renah F. Camalier, April 29. The plan calls for consolidation of present mental services as well as a new resident treatment center.

Attending the meeting were Dr. Cloyd H. Marvin, President of George Washington University; Dr. Winfred S. Overholser, Superintendent, and Dr. Addison M. Duval, Assistant Superintendent, of St. Elizabeths Hospital; Dr. John A. Lewis, psychiatric consultant to the Federal Department of Health, Education and Welfare; Welfare Director Gerard M. Shea; the Reverend Thomas J. O'Donnell, Regent of Georgetown University School of Medicine; Colonel E. Goring Bliss, Chairman of the Commissioners' Advisory Committee on the Alcoholic; Dr. John D. Schultz, chief psychiatrist at D. C. General Hospital; Mr. G. Howland Shaw, President of the Washington Mental Hygiene Association; Dr. Marshall deG. Ruffin, President of the Washington Psychiatric Association; Dr. Preston A. McLendon, President of the District Medical Society; Dr. Israel Shulman, of the District Dental Society; Dr. W. Montague Cobb, President of the Medico-Chirurgical Society; and Dr. A. B. Price, Regional Medical Director of the United States Public Health Service.

Group Hospitalization, Inc. announces that 1954 was its most successful year, enrollments having increased to 595,000. The net gain in enrollment was 90 per cent greater than in 1953; subscriber benefits amounted to $6,500,000.

At the annual meeting, April 15, Joseph H. Himes was elected President for the twenty-second time.

F. Moran McConihe, President of Emergency Hospital, was elected to the Board of Trustees. Reëlected to the Board were General Frank T. Hines and Frank R. Jelleff. Other officers reëlected were Alfred G. Neal, First Vice President; Charles D. Drayton, Second Vice President; James H. Lemon, Secretary; and Bruce Baird, Treasurer.

A new chapter of **Alpha Omega Alpha,** national medical honor society, was installed at **Howard University School of Medicine,** May 14, in Baldwin Hall. Fourteen Howard University medical students became charter members. Honorary memberships were presented to the following faculty members: Dean Robert S. Jason of the College of Medicine; Dr. W. Montague Cobb, Professor of Anatomy; Dr. John B. Johnson, Professor of Medicine; Dr. Joseph L. Johnson, Professor of Physiology; Dr. R. Frank Jones, Professor of Urology; and Dr. Howard M. Payne, Professor of Medicine. Dr. Peter Marshall Murray, of New York, President of the Medical Society of the County of New York and a Howard alumnus, was inducted as an honorary alumni member.

Guest speaker at the ceremonies was Dr. Aura E. Severinghaus, Associate Dean of the College of Physicians and Surgeons at Columbia University. Among the guests present for the occasion was Theodore Wiprud, Secretary of the District Medical Society.

The American Medical Association, in coöperation with the **American Psychiatric Association and the District Medical Society,** presented another closed-circuit **Videclinic** at the Hotel Statler, May 9. This was a clinical conference on "Mind and Medicine, New Weapons against Mental Illness." Psychiatrists from many outstanding institutions in the field of mental illness took part in the televised program. The audience traveled abroad to view the "open ward" system and "therapeutic communities" of England and Belgium. It was estimated that about 600 physicians attended this telecast, produced and sponsored by Smith, Kline & French Laboratories of Philadelphia.

The Hadley Memorial Hospital, located at 4601 Nichols Avenue, S.W., was dedicated in special ceremonies, Sunday afternoon, May 15. The institution, administered by the Potomac Conference of Seventh Day Adventists, has been in operation since 1952, but dedication was delayed until the building was completed. A 60-bed general hospital, the Hadley Memorial was built at a cost of $1,500,000. Its director is Dr. Henry G. Hadley, a former member of the D. C. Medical Society; the Administrator is Miss Wilma L. Tuttle. The principal dedicatory address was given by Mr. Walter R. Beech, General Administrative Secretary of the International General Conference of the Seventh-Day Adventist Church.

Sixteen members of the **Women's Medical Society** were guests of the Lederle Laboratories in New York, April 14–15. The invitation was issued to enable members of the Society to observe at first hand the operations of the vast Lederle Laboratories plant in Pearl River, New York, about 30 miles northwest of the city. Mr. John A. Pfohl, Head of Sales and Guest Relations, welcomed the party at the plant; after the visitors had toured the buildings and grounds, he headed a panel of specialists who answered questions regarding the scientific research in progress.

Those who participated in the tour were: Dr. Mary K. L. Sartwell, President of the Women's Medical Society; Dr. Cecile Fusfeld, who took care of many of the details of the tour; and Drs. Anna Allen, Ella Andrews, Anna Bartsch-Dunne, Gloria Cochran, Claudine Gay, Thelma Hunt, Elizabeth Kahler, Beryl Kester, Dorothy Jaeger-Lee, Genevieve McEldowney, Anna Neumann, Carolyn Pincock, Alma Skinner, and Dorothy V. Whipple.

Husbands of some of the doctors accompanied them on the trip. Among them were Drs. Ervin Chapman, Winston Cochran, Lendall Gay, and Glen Pincock. Also in the party were A. Louise Eckburg, Assistant Editor of MEDICAL ANNALS, and Mr. and Mrs. Ollie Ensor. Mr. Ensor is the Washington representative of Lederle, who made the local arrangements for the tour.

Lederle Laboratories, a division of the American Cyanamid Company, is using this method for carrying its message to the doctors. Arrangements for a tour can be made for a group of 8 or more interested physicians by writing to the Company.

George Washington University School of Medicine has received a contribution of $4,275 from a group of private citizens which will enable **Dr.**

Benjamin Manchester, Assistant Clinical Professor of Medicine, to study and develop a new method for measuring blood prothrombin activity.

Georgetown University School of Medicine has received a research grant in the amount of $7,998 from the National Institute of Arthritis and Metabolic Diseases, U. S. Public Health Service. **Drs. George E. Schreiner and Laurence H. Kyle** of the medical staff will use the funds for a study of nutrition in persons who have temporarily suffered a loss of kidney function and have been stabilized by the artificial kidney.

Mrs. Frank F. Strope, President of the District Congress of Parents and Teachers, has been appointed **Executive Secretary of the District Mental Health Association.** Mr. G. Howland Shaw, President of the Association, who made the announcement, stated the appointee would assume her new duties on June 1. Mrs. Strope has been President of the PTA Congress for three years. She is First Vice President of the Mental Health Association and will be the Association's first Executive Secretary. Founded two years ago, the Association has offices in the Health Department's Alcoholic Clinic Building at 2227 M Street, N.W.

Mr. Edward H. Steinberg, Executive Secretary of the **District of Columbia Dental Society,** resigned his position, effective April 11.

Thirty-five boys, all **sophomores from St. Albans High School,** toured the **School of Medicine at George Washington University,** April 27, as part of a program to stimulate interest in the sciences in young students. Dean Walter A. Bloedorn welcomed the boys and Dr. Joseph W. Still, Assistant Professor in Physiology, discussed with them the role science plays in modern life and then led them on a tour of the five departments of the School. In each of the laboratories, instructors had set up demonstrations for the boys to watch. Several of the young visitors participated in tests measuring metabolism and energy output. University officials expect to make this an annual event.

PERSONALS

Dr. Francis M. Forster, Dean of Georgetown University School of Medicine, was elected President-elect of the American Academy of Neurology at its annual meeting in Houston, Texas, April 28-30. The American Academy of Neurology is the largest society of neurologists in this country. Dr. Forster, who is also Professor of Neurology of Georgetown, has been a member of the Academy since its inception in 1948; he has served the Academy as Secretary, Vice President, and twice as Chairman of the Program Committee before being elected to his present office.

Dr. Hugh H. Hussey, Professor of Preventive Medicine and Public Health at Georgetown University School of Medicine, and Editor of GP, official journal of the American Academy of General Medicine, was honored at a joint dinner meeting of the Georgetown University Alumni Association and the Georgetown Club of Boston, in Boston, May 9, at the Sheraton-Plaza. Dr. Hussey was one of five to receive the John Carroll Award. The citation read:

> "The Georgetown University Alumni Association, proudly conscious of the record of the sons of Georgetown in exemplifying the ideals and traditions of their alma mater, confers the John Carroll Award for 1955 upon Dr. Hugh H. Hussey, '34, whose life, marked by distinguished services, has reflected great credit upon the University."

Some 550 alumni and guests attended the dinner meeting. Other recipients of the Award were Congressman Antoni N. Sadlak, of Connecticut; The Honorable Joseph C. O'Mahoney, of Wyoming; the Honorable Edmund L. Flynn, Chief Justice of the Supreme Court of Rhode Island; and the Most Reverend Jeremiah F. Minihan, Auxiliary Bishop of Boston.

Dr. Charles A. Hufnagel, Director of the Experimental Laboratory in Surgery at Georgetown University, has been elected Notre Dame Man of the Year by the Notre Dame University Club of Washington. Dr. Hufnagel, a Notre Dame graduate (1937), received an engraved scroll at the Club's 32nd Annual Dinner, April 18, in the Sheraton-Carlton Hotel. He was cited for his pioneer contributions to cardiac surgery. Guests of honor at the dinner included the Honorable James P. Mitchell, Secretary of Labor, and the Reverend Theodore M. Hesburgh, C.S.C., President of Notre Dame University.

Dr. Hufnagel addressed the Fourth Annual Scientific Assembly of the Kentucky Academy of General Practice in Louisville on April 21. His subject was "Surgical Therapy in Vascular Diseases."

Dr. Herbert P. Ramsey was one of four distinguished alumni of Eastern High School who were honored at the School's 25th Annual Alumni Dinner, held at the Officers Club of the Naval Gun Factory, May 12.

Dr. Ramsey, of the Class of 1912, is Chairman of the Department of Gynecology at Garfield Memorial Hospital. For many years he was Clinical Professor of Obstetrics and Gynecology at George Washington University School of Medicine. Dr. Ramsey is the immediate Past President of the Medical Society of the District of Columbia and a member of its Executive Board.

Other honorees, all of whom received scrolls from the President, Miss Nellie E. Dalrymple, were: Mrs. Helena Doocy Reed, President of the Women's Bar Association; Representative George Huddleston, Jr., of Alabama; and Comdr. Robert Slye, Executive Officer of the Naval Air Station at Anacostia.

At the business session of the Alumni Association, **Dr. John H. Hazard** was elected Vice President.

Dr. James W. Watts, Professor and Head of the Department of Neurology and Neurological Surgery, George Washington University School of Medicine, left the States on May 1 to attend the 20th Anniversary Meeting of the International College of Surgeons in Geneva, Switzerland. He presented a paper at this meeting on "Psychosurgery on Its Twentieth Anniversary." Mrs. Watts accompanied him. They were planning to spend about 10 days in Nice with Mrs. Watts' brother, Mr. Randolph Harrison, who was formerly in the Diplomatic Service. They expected to be gone a month.

Dr. Monroe J. Romansky, Associate Professor of Medicine, George Washington University School of Medicine, gave the first series of lectures in the newly established Lilly Lecture Series for Latin America. These lectures are coördinated with the Voluntary Programs Branch of the International Educational Exchange Service of the Department of State. Dr. Romansky discussed "Principles and Factors Influencing the Trend of Antibiotic Therapy." The lectures were given in March at medical schools and societies in Mexico City, Mexico; Guatemala City, Guatemala; Bogota, Colombia; Lima, Peru; Santiago, Chile; Buenos Aires, Argentina; Montevideo, Uruguay; Sao Paulo and Rio de Janeiro, Brazil. He spoke at the National Institute of Cardiology in Mexico City and before the Chilean National Medical Society in Santiago, Chile. In addition, ward rounds and conferences were made in the various hospitals.

Dr. O. Hugh Fulcher, Professor of Neurological Surgery at Georgetown University School of Medicine, addressed the Harvey Cushing Society of Neurological Surgeons in Quebec, May 16. His subject was "The Choroid Plexus, a Potential Third Kidney."

Mrs. Fulcher joined Dr. Fulcher in New York on May 18 to accompany him on a six-week tour of Europe. On May 24, he addressed the International Surgical Congress in Geneva, Switzerland, on "Problems and Assets of the Third Circulation."

Dr. Winfred Overholser has been reëlected President of the Washington Institute of Mental Hygiene, which agency he has headed since 1937. **Dr. Frieda Fromm-Reichmann** was elected to the Board of Directors for a three-year term.

Dr. Darrell C. Crain, Assistant Professor of Clinical Medicine, Georgetown University School of Medicine, was one of the speakers at the 163rd Annual Meeting of the Connecticut State Medical Society in Stratford, Conn., April 27. Dr. Crain spoke on "Brachial Neuralgia—What Is It or Is It?"

Dr. Leon Yochelson, Associate Clinical Professor of Psychiatry, George Washington University School of Medicine, was a panelist on the subject, "Children Growing Up in Our Home Town," presented at Washington's Sixth Annual Health, Welfare and Recreation Conference. This meeting was sponsored by the United Community Services and was held at the Hotel Statler, May 13.

One of Washington's most distinguished women physicians, **Dr. Edith SeVille Coale,** retired on March 1, 1955, bringing to a close an active medical career spanning 47 years. Upon closing her office in the Hay-Adams House, where she has practiced for the past 25 years, she moved to the Presidential Apartments, 1026 Sixteenth Street, N.W.

Dr. Coale graduated from the Women's Medical College, long since absorbed by the Johns Hopkins Medical School, in 1908. From the time of her graduation until 1913, she was on the staff of a mental institution. Since then she has been engaged in general practice in the District of Columbia.

She has been an Active member of the District Medical Society for more than 40 years, and on January 1, 1954 became eligible for Life membership. Always a loyal supporter of the Society, she has served with distinction on a number of its committees.

Dr. Coale states that she plans to do considerable traveling in the next few years, something she has always enjoyed doing. Her many friends wish her many years of pleasant relaxation from her ardent medical duties.

EDITH SEVILLE COALE, M.D.

CAT.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
April 10	Dr. Julius Schreiber	The World of Teenagers	Montgomery County Unitarian Church
April 13	Dr. Julius Schreiber	Living in a World of Tension	Arlington Unitarian Church
April 17	Dr. Julius Schreiber	The Psychodynamics of Intergroup Relations	Parents Group, Hillcrest House
April 17	Dr. Julius S. Neviaser	Rehabilitation of Poliomyelitis Patients	WTOP-TV, "To Live Anew" Series
April 21	Dr. Sidney Berman	Discussion of film, "Age of Turmoil"	Montgomery County Mental Hygiene Society
April 24	Dr. Jack E. White	Cancer	Dorcas Missionary Society, New Bethel Baptist Church
April 27	Dr. Arthur C. Christie	How Long Will Rotary Last?	Washington Rotary Club
May 8	Dr. William T. Gibb	Family Health	Adult Group, Calvary Baptist Church
May 24	Dr. Reuben Sorkin	Poliomyelitis and the Salk Vaccine	Southlawn Women's Club

Dr. S. Ross Taggart, Acting Chief, Preventable and Chronic Diseases Division of the District Department of Public Health, attended the Venereal Disease Control Seminar, Region III, USPHS, in Miami Beach, Florida, April 20-21, where he presented a paper on the results of serologic testing in industrial groups.

Dr. Taggart also attended the national meeting on the Recent Advances in the Study of Venereal Diseases, April 28–29, sponsored jointly by the U. S. Public Health Service and the American Venereal Disease Association; he was elected Treasurer of the latter organization.

Dr. Theodore Winship and Dr. Ernest A. Gould attended the annual meeting of the American Goiter Association in Oklahoma City, Oklahoma, April 27–30. Dr. Winship was co-author of two papers presented at this meeting: "Childhood Thyroid Carcinoma," Dr. Winship and Dr. W. W. Chase; "Occult Sclerosing Carcinoma of the Thyroid," Dr. G. H. Klinck, of the Armed Forces Institute of Pathology, and Dr. Winship. Dr. Gould was inducted into membership in the Association.

Dr. Frank E. Wilson, Director of the American Medical Association's Washington Office, addressed the 102nd National Conference of the American Pharmaceuticel Association, in Miami Beach, Florida, May 5. Dr. Wilson spoke on "Taking Stock of Trends in Medical Affairs."

Dr. Lawrence E. Putnam, Associate in Medicine, George Washington University School of Medicine, **and Dr. Sidney Ross,** Research Foundation, Children's Hospital, have been appointed to the Editorial Board of a new journal, *Antibiotic Medicine—Journal of Clinical Studies and Practice of Antibiotic Therapy. Antibiotic Medicine* is published by MD Publications, Inc. (30 East 60th Street, New York City) for Antibiotic Medicine Publications, Inc. Dr. Henry Welch, Director, Division of Antibiotics, Food and Drug Administration, is Editor-in-Chief; Dr. Félix Martí-Ibáñez, New York, is Associate Editor.

Dr. Sol Katz addressed the 14th Conference on Chemotherapy of Tuberculosis in Atlanta, Ga., February 9, on "Use of Cortisone in Pre-terminal Tuberculosis." On April 21, he was in Warrenton, Va., where he spoke before the Fauquier County Tuberculosis Association on "Current Problems of Tuberculosis." Dr. Katz is Chief of the Division of Pulmonary Diseases, D. C. General Hospital, and Adjunct Clinical Professor of Medicine at George Washington University.

Dr. Theodore J. Abernethy has been elected President of the Attending Staff of Emergency Hospital, succeeding **Dr. Arch L. Riddick,** who was elected to the Honorary Board. Mr. F. Moran McConihe was reëlected President of the Board of Directors for the third time.

Dr. Julius S. Neviaser and Dr. William J. Tobin were among the examiners for Part I of the American Board of Orthopedic Surgery. The examinations were held at the University of Virginia in Charlottesville, April 8 and 9.

Dr. Addison M. Duval, Assistant Superintendent of St. Elizabeths Hospital, was elected Vice Chairman of the D. C. Commissioners' Youth Council, succeeding Ferdinand Grayson. The Council meeting was held in the District Building, April 21.

Dr. Waldo B. Moyers, an Associate member of the District Medical Society, was elected temporary chairman for a group of residents of Prince Georges County who are interested in forming a County Heart Association chapter. A county-wide organizational meeting is planned for June.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, April 18, 1955, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Peyton R. Evans, Jr., Washington Clinic
Thomas M. Gocke, Georgetown University Hospital
Willard F. Jones, 715 44th Street, N.W.
William G. Lofton, Jr., 1737 11th Street, N.W.
Joseph O. Romness, 1801 K Street, N.W.

Associate Members

Nell K. Levy, 5006 Bradley Blvd., Chevy Chase, Md.
Joseph A. Sabri, 1801 K Street, N.W.
Peter Soyster, 1911 Howard Court, Falls Church, Va.

The following applicants for membership will be voted on at the meeting of the Executive Board, July 25, 1955.

For Active Membership

Audrey M. Connor, George Washington University—1950
Robert DeWitt, St. Louis University—1951
Marshall H. Jacobson, George Washington University—1948
George A. Kelser, Jr., George Washington University—1949
Marvin C. Korengold, University of Minnesota—1949
William G. Lofton, Sr., Howard University—1923
Paul R. McCurdy, Harvard University—1949
A. Genevieve McEldowney, Women's Medical College of Pennsylvania—1944
Tanner B. McMahon, Howard University—1950
James G. Sites, George Washington University—1947
Maurice B. Wehr, George Washington University—1947

For Associate Membership

Robert L. Bregman, Georgetown University—1950
Arthur G. Compton, George Washington University—1907
John Harry King, Jr., Georgetown University—1934
Edward B. Price, Jr., University of Pennsylvania—1946
James Henry Stallings, George Washington University—1952
Marc Lee West, George Washington University—1952

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Doctors in the Sky—The Story of the Aero Medical Association. ROBERT J. BENFORD, M.D., Colonel, Medical Corps, United States Air Force. Price, $8.75. Pp. 326. Springfield, Ill.: Thomas, 1955.

Fluoroscopy in Diagnostic Roentgenology. OTTO DEUTSCHBERGER, M.D., Assistant Clinical Professor of Radiology, New York Medical College; Roentgenologist in Charge, Bird S. Coler Memorial Hospital, N. Y.; Associate Visiting Roentgenologist, Metropolitan Hospital, N. Y.; with an introduction by Frank J. Borrelli, M.D., F.A.C.R., Professor of Radiology, New York Medical College; Director of the Departments of Radiology, Flower Fifth Avenue Hospital, N. Y., Metropolitan Hospital, N. Y., Bird S. Coler Memorial Hospital, N. Y. Price, $22.00. Pp. 771, with 888 illustrations on 523 figures. Philadelphia: Saunders, 1955.

Pomp and Pestilence—Infectious Disease, Its Origins and Conquest. RONALD HARE, M.D., Professor of Bacteriology in the University of London at St. Thomas's Hospital Medical School. Price, $5.75. Pp. 224. New York: Philosophical Library, 1955.

Ion Exchange and Adsorption Agents in Medicine—The Concept of Intestinal Bionomics. GUSTAV J. MARTIN, SC.D., Research Director, The National Drug Company, Philadelphia. Price, $7.50. Pp. 333, illustrated with 15 line drawings and 11 photographs. Boston: Little, 1955.

Drugs in Current Use. WALTER MODELL, M.D., F.A.C.P., Associate Professor, Clinical Pharmacology, Cornell University Medical College. Price, paper, $2.00. Pp. 147. New York: Springer, 1955.

CAT.

TRUMAN ABBE, B.A., M.D.

(1873–1955)

Dr. Truman Abbe, cancer specialist and former Chief Surgeon at Garfield Memorial Hospital, died May 2, 1955, in Emergency Hospital. His home was at 7308 Radcliff Drive, College Park, Maryland.

Dr. Abbe was born at the present site of Doctors Hospital. His father, Professor Cleveland Abbe, founded the Weather Bureau and was former Editor-in-chief of the *Monthly Weather Review*. His mother was Frances Neal Abbe. Robert Colgate, whose sons founded the Colgate Soap Company, was the great-great-grandfather of Dr. Abbe. Interested in genealogy, he and his cousin, Hubert Abbe Howson, published in 1941 "Robert Colgate the Immigrant." Dr. Abbe had recently completed a book about his father entitled, "Professor Abbe and the Isobars." His uncle, Dr. Robert Abbe, was a famous New York surgeon.

A graduate of Central High School, Dr. Abbe studied at Harvard University, receiving the degree of Bachelor of Arts *magna cum laude* in 1895. He received his medical degree from Columbia University College of Physicians and Surgeons in 1899, after which he studied at the University of Berlin. From 1900 to 1901 he interned at Mount Sinai

Hospital in New York City. The following year he was resident physician at New York Lying-in Hospital.

In 1902, Dr. Abbe opened offices in Washington, D. C. at 2017 Eye Street, N.W. He was one of the first two anesthesiologists to practice in the District. He and Dr. Robert Lowe were appointed to serve in that capacity at Columbia Hospital in 1905.

Dr. Abbe generally was recognized as the first physician to put radium to medical uses. In 1902 he gave what was thought to be the first demonstration of the medical use of radium at the home of Alexander Graham Bell on Conneticut Avenue before a group of scientists. He had obtained some radium on a loan from the Smithsonian Institution.

TRUMAN ABBE, M.D.

CAT.

In 1907 he obtained some radium from Eve and Pierre Curie and again demonstrated its medical potential at the Jamestown (N.Y.) Exposition. He received a silver medal for this demonstration.

Dr. Abbe was Chief Surgeon of the Outpatient Department at Garfield Hospital from 1902 to 1912 and Associate Surgical Attending Physician from 1910 to 1912. He was Senior Anesthetist at Columbia Hospital from 1906 to 1916, Associate Surgeon from 1910 to 1930, and Associate Roentgenologist from 1916 until he retired in 1946. During World War I he was a member of the Army Medical Advisory Examination Board.

A Life member of the Medical Society of the District of Columbia, Dr. Abbe was elected to membership in both the Medical Society and the Medical Association of the District of Columbia in 1903. He was a member of the American Medical Association, the Radiological Society of North America, and an honorary member of the Washington Gynecological Society. He was active for many years in the University, Harvard and Cosmos Clubs. The author of numerous medical articles, he also lectured on physiology, surgery, and X-ray therapy at Georgetown and George Washington Universities. He had served as a director of the Chevy Chase Savings Bank and as trustee for the National Park Association.

Dr. Abbe married Ethel Whipple Brown, who was a nurse in residence when he was an intern at Mount Sinai Hospital. The marriage ceremony was performed by the Reverend Edward Everett Hale, then Chaplain of the United States Senate. They celebrated their golden wedding anniversary on April 22, 1955. More than 200 persons attended a reception at the home of their daughter, Dr. Petrena Abbe Shea. Both Dr. Shea and her husband, Dr. S. Hazen Shea, are Active members of the District Medical Society.

Dr. Abbe is also survived by three sons, Truman Waldo Abbe, of Beaumont, Texas; Gilbert Abbe, of College Park, Md.; and William Whipple Abbe, of Bethesda, Md. Another daughter, Mrs. Margaret Abbe Burt, lives in Hinsdale, Illinois.

RADFORD BROWN, M.D., F.A.C.S.

(1899–1955)

Dr. Radford Brown, well known gynecologist and obstetrician, died, April 23, 1955, after a brief illness, at George Washington University Hospital. Dr. Brown was Clinical Professor of Obstetrics and Gynecology at George Washington University School of Medicine and a staff member at George Washington, Garfield Memorial and District of Columbia General Hospitals.

A native of Baltimore, Md., Dr. Brown was born

July 19, 1899, and moved to Washington with his parents as a child. He was educated in the public schools in the District and was graduated from McKinley Technical High School. He received his degree of medicine from George Washington University School of Medicine in 1923.

After his graduation, Dr. Brown entered the Navy and served as an intern in the Navy Hospital at San Diego, California. He interned another year, 1927–28, at the Sloane Hospital for Women in New York City and continued as resident in gynecology and obstetrics there until 1931. He returned to Washington in 1931 and had practiced in the District since that time. His home was at 3514 Williamsburg Lane, N.W.; he was associated in practice with Dr. Neel J. Price in offices at 1746 K Street, N.W.

Dr. Brown had been an Active member of the Medical Society of the District of Columbia since 1936. He was a diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Surgeons, and a member of the American Medical Association and the Washington Gynecological Society. He was also a member of Delta Tau Delta fraternity and the Columbia Country Club.

Gardening was his hobby; he was particularly proud of his flower gardens, one in Washington and another at his summer home at Rehoboth Beach, Delaware.

He is survived by his wife, Mrs. Georgianna Markham Brown, and a daughter, Virginia Ellen Brown, both of the home address. He also leaves two adopted children, Mrs. Nancy Brown Norwood, Norwalk, Conn., and Lt. Damon Brown, in the Air Force, now stationed in Tokyo, Japan, and two stepdaughters, Miss Barbara Greene, New York City, and Mrs. Suzanne Edwards, Atlanta, Ga.

Cystic Disease of Breasts—Gould

(Continued from page 288)

who would remove the breast tissue and perform reconstructive lipodermal flap procedures[9] on patients who have a benign condition to begin with. In these days of campaigns within and without the medical profession concerning unnecessary surgery, it would seem that there must be a reappraisal of such practices as regards cystic disease of the breast.

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Ulcerative Colitis—Warfield

(Continued from page 293)

but without malignant change. Convalescence was uneventful in 14 days.

The third and final operative step on June 4, 1954 consisted of an abdominoperineal resection of the remaining sigmoid and rectum, and a subtotal hysterectomy. The rectum did not show as severe a grade of disease as had the colon. The uterus contained 4 small fibroids. Again her convalescence was uneventful in 11 days.

When seen in January of 1955 the patient was quite well. Her weight was 125 lbs. as compared to 97 lbs. during the disease and 137 lbs. previously. The ileostomy fistula had not been corrected. There had been no skin excoriation. Gentle dilations of the stoma had prevented stricture. The ileostomy drainage varied; most of the time it was soft, but occasionally it was watery when she became fatigued or nervous. Her general condition was excellent and she was encouraged to resume her former occupation.

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Sterilization—Savage

(*Continued from page 296*)

SUMMARY

1. A consideration of therapeutic sterilization is presented, and puerperal sterilization is advocated in those instances in which permanent prevention of conception is a medical necessity. Some obstetrical, gynecologic, surgical, and medical indications are outlined.

2. One of the best methods of prolonging life in those patients with serious organic disease is therapeutic sterilization, and this procedure is a valuable adjunct to the over-all reduction of maternal mortality.

3. In hospitals in which a sterilization committee is active, determining in each case whether or not sterilization is indicated, the number of such operations will be reduced materially.

4. Careful, complete and individual study of each patient prior to the performance of sterilization is urged.

6 East Read Street
Baltimore 2, Md.

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On the Lighter Side—Kadan

(*Continued from page 319*)

Garfield—105, Dr. Clyde Reeves and Dr. J. Earl Kadan of Columbia were tied with 105 each, Dr. John W. Price of George Washington—108, Dr. Gordon MacDonald of Georgetown—108, Dr. Andrew Betz of Suburban—107, Dr. J. Phelps Hand of Sibley #2—106, Dr. Ray N. Brown of Doctors—102, Dr. Robert Montgomery of Emergency #1—102, Dr. Harold H. Hawfield of Emergency #2—101, and Dr. Alan R. Crain of Providence—103.

The silver trophies for bowling achievement were not the only prizes, however. Every member of the Bowling League present at the banquet received a valuable merchandise prize donated by our good friends, the neighborhood druggists of the Washington Metropolitan Area. These prizes and gifts were collected and transported to the scene of merrymaking by Mr. Irwin Sealfon of the Meredyth Pharmaceutical Company. All names were placed in a hat, and as each member's name was called, he in turn took his pick of all the merchandise on display.

This column sincerely hopes that this account of the fun, food, drink and prizes collected by the bowlers of the D. C. Medical Bowling League for 1954–55 will create in the hearts of our readers an earnest desire to join us next season on the spillways. There is room for another bowling team in our League if we can get the bowlers!

J. Earl Kadan, M.D.

MEDICAL ANNALS
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HYPOTHERMIA

GEORGE WILLIAM WARE, M.D.

Instructor in Thoracic Surgery, Georgetown University School of Medicine; Associate in Thoracic Surgery, Providence Hospital, Washington

HYPOTHERMIA has been defined by Swan[1] as "the state of a homeothermic animal with a subnormal body temperature." This temperature may range between normal and absolute zero. When one discusses clinical hypothermia he indicates the temperature range of 23° to 30°C (73.4–86°F).

HISTORY

Cold as an adjunct in medicine was apparently first used by the French Army surgeons for amputations during the retreat of the Napoleonic army from Moscow. Sporadic physiologic experiments were made in the early twentieth century. Simpson[2] worked with cats and monkeys in the temperature range below 25°C (77°F). He noted that no anesthetic agent was needed at this temperature level, since the animal felt no pain. He described this painless state as "artificial hibernation." Such an expression is occasionally used today but is erroneous, since the homeothermic animal constantly strives to maintain his normal temperature whether his environment is hot or cold.[3] The hibernating animal, however, will approach within a few degrees the temperature of his environment.

Troedsson[4] in 1939 published his observations on this subject. He noted the important clinical fact that wetting the skin hastened the cooling process. Although his subjects were animals, he predicted the method would find use in humans "to reduce temporarily high fever, high metabolic rates, rapid heart action or to give the heart a rest. Operations might be performed, as there is loss of consciousness at low temperatures."

During this period, Fay and Smith[5, 6, 7] became interested in the use of profound cold in the treatment of carcinoma. They found that prolonged application of cold could affect local carcinoma, such as that of the breast. However, although the local lesion regressed, distant metastatic areas, such as in the spine, would progress. To combat this they developed a system for generalized refrigeration. Narcotized patients were brought to a room which had a constant temperature of 16°C (60°F). Ice was applied to the bodies of the patients. The plan was to keep the temperature of the patient at

31–32°C (88–90°F) for 4 to 5 days. In this manner they hoped to affect the multiple carcinomatous sites. They recorded that the patients appeared half asleep, felt no pain, and could answer simple questions. Fay and Smith labeled this state "hibernation." Such treatment for carcinoma enjoyed a vogue in the late thirties and early forties of this century. Use of this technic by other investigators added to our knowledge of the physiologic processes of cold. One such investigator, Talbott,[8] introduced the term "hypothermia."

A new turn occurred in 1947. In that year Bigler and McQuiston[9] became interested in body temperature and its correlation to the clinical course of surgical patients at the Children's Memorial hospital in Chicago. Stimulated by the death of 2 postoperative infants in a state of hyperpyrexia, they began to study carefully temperatures during and after surgery. Such study revealed that with moderately reduced temperatures of 35–37°C (95–97°F) during surgery the operation and the immediate postoperative period progressed more smoothly. At this temperature range the amount of anesthetic agent used was less, and the heart rate and respirations were lowered.

The real impetus for the use of hypothermia in surgery came with the publications of Bigelow and Boerema.[10-13] In 1950 Bigelow and his associates from Toronto reported their experiments in animals. Reduced temperatures were used for the specific purpose "of reducing the oxygen requirements of the body sufficiently to allow exclusion of the heart from the circulation, thereby permitting intracardiac surgery under direct vision." At a temperature of 20°C (68°F) they reported that they could completely interrupt the circulation for 15 minutes without organic damage. The mortality rate, however, was high; approximately 50 per cent of the animals died of ventricular fibrillation or cardiac standstill.

Boerema and associates[13] from Amsterdam, unaware of Bigelow's work, did experimental work at a temperature range of 26°C (79°F). They could occlude the superior and inferior venae cavae and the azygos vein for 10 to 15 minutes "without causing permanent pathological change." Fatal ventricular fibrillation occurred in an unstated percentage of dogs.

These two reports fired the imagination of workers in the field of cardiovascular surgery.[14] In the intervening 4 or 5 years a prodigious amount of research has been performed with hypothermia. Clinical cases were soon to follow. Bailey[15] in the latter part of August 1952 probably performed the first clinical cardiac operation using hypothermia. He attempted to close an atrial septal defect but lost the patient due to ventricular fibrillation. Within a few days Lewis and Taufic[16] successfully repaired such a defect in a young girl; the temperature during the cardiac surgery was 26°C (79°F).

PHYSIOLOGY

Certain basic principles may be stated. The younger the individual, the better he tolerates hypothermia. This is strikingly shown in infant mammals. For example, newborn rats will survive temperatures of 10°C (34°F) for 30 minutes, while adult rats will succumb at a temperature range of 14–16°C (57–61°F).[17]

The most startling fact with the use of hypothermia is the fall in the oxygen consumption. Such fall parallels the reduction of the patient's or animal's temperature. At 30°C (86°F) the oxygen consumption is 50 per cent of normal, and at 20°C (68°F) the oxygen consumption is 15 per cent of that needed at normal temperature ranges. Theoretically, at 10–12°C (50–54°F) oxygen consumption would approach zero.[18] Such reduction in oxygen need has been a universal finding by all investigators.[19-22]

Various studies have been performed to ascertain whether or not such oxygen uptake at these particular temperatures is adequate. Bigelow measured the arteriovenous oxygen difference before and after blood had passed through an organ. Down to 18°C (64°F) he could demonstrate no abnormal difference. He interpreted this to show that at these temperatures the circulation was adequate for the oxygen requirements of the tissues. His group also noted that during rewarming the animals did not have an abnormal oxygen requirement as would be expected with an oxygen deficit. When completely revived the animals did not show evidence of oxygen deprivation, such as tissue damage to liver, brain, etc. Prolongation of the hypothermic state for several hours did not change these findings. Several authors[23, 24] have measured the coronary arteriovenous oxygen difference. No change from normal values has been noted even when the temperature is reduced as low as 20°C (68°F). Use of 100 per cent oxygen to ventilate these animals (to increase physically dissolved oxygen in the blood stream) did not appreciably change the coronary arteriovenous oxygen difference. Actually the cold state per se increases the solubility of oxygen in the blood. Rosenhain[25] estimates that at 25°C (77°F) this solubility is 33 per cent greater than normal and at 20°C (68°F), 50 per cent greater.

If the subject is properly anesthetized, the pulse rate falls with hypothermia.[3, 11, 13, 26, 27] Actually there is a marked linear relationship to temperature fall. Talbott[8] found that in humans with temperatures reduced to the 27–33°C (80–90°F) range the pulse rate was usually 50 to 60 per minute. The blood pressure is usually well maintained with only slight fall until approximately 26°C (79°F).[13, 21, 22, 26, 27] Below this figure it falls rapidly, having then a similar relation to temperature as the pulse. Because of the intense vasoconstriction which occurs the conventional arm cuff may be of little value. Intra-arterial cannulas are far more accurate. The respiratory rate slowly falls,[22, 28] and adequate ventilation of the lungs is necessary by the anesthetist to prevent hypoxia. Usually at 28°C (82°F) spontaneous respirations cease due to the effect of the cold state.

Venous pressure falls at the induction of hypothermia. Positive pressure oxygen to properly ventilate the lungs usually causes a later rise in the venous pressure. Shivering on the part of the subject will increase the venous pressure.

Cardiac output decreases with cooling and increases on rewarming.[11, 21] In the experimental animal the cardiac output at 20°C (68°F) has been calculated to be 15 per cent of normal. Peripheral resistance is markedly increased due to vasoconstriction and also increased viscosity of blood. In the unanesthetized subject there is a definite pattern of loss of reflexes.[4, 29] The higher functions go first and also return first on rewarming.

When circulation is interrupted we are accustomed to think of the brain as the weak organ and the one first to suffer damage. This is certainly true at normal temperatures, when interruption of the circulation for over 3 minutes causes permanent brain damage. However, in the cold state the heart is the weak organ, and the brain tolerates these temperature ranges without difficulty. This point has been particularly investigated by the Toronto group.[12, 30] These investigators gave a series of monkeys certain intelligence tests. Precooling electroencephalograms were made. The temperature of these animals was then reduced to 20°C. EEG activity began to decrease at 31–33°C (88–91°F). There was no cortical activity noted at 20°C. When rewarmed these animals showed no neurologic damage and performed the same intelligence tests. There was no change in the pattern from the precooling EEG.

Swan[1] made electroencephalograms postoperatively on 14 patients who were operated on in the temperature range of 26–29°C (79–84°F). All tracings were normal. Laufman[31] has reported a normal EEG in a woman who survived profound hypothermia (18°C).

Cause of Death

With progressive hypothermia death eventually occurs. The majority of investigators have considered death to be cardiac in origin. Others have stated that death is due to anoxia, due either to the effect of cold on the respiratory center (Prec et al[21]) or to tissue anoxia.

Hegnauer and associates[26, 32] adhere to the belief that death is cardiac in origin. Despite a fall in pulse rate the heart's work is not proportionately decreased, since the duration of systole in the cardiac cycle is increased. This increase has been calculated to be 6-fold at 18°C (64°F). Increase in blood viscosity and peripheral vasoconstriction also add to the work load of the heart. Cardiac output and hence coronary circulation is less in the hypothermic state. Sufficient oxygen is available, but the heart muscle does not have the necessary time to use it. Death finally occurs due to heart failure. Similar views were held by Lynn and the Nazi investigators.[20, 33]

Lange,[34] however, considered tissue anoxia to be the cause of death. At reduced temperatures there is a stronger oxygen-hemoglobin bond and dissociation is impaired. Although sufficient oxygen is present, Lange felt that dissociation was so poor that tissue anoxia resulted. This investigator first believed this to be so after examination of the electrocardiographic tracings in hypothermic animals. He reported that all subjects showed T-wave changes suggestive of anoxia. Ventilation of the animals with 100 per cent oxygen did not improve the ECG. However, increasing the pressure of the oxygen and thus increasing physically dissolved oxygen in the animals' blood stream did improve the ECG; also, increasing the acidity of the blood by acid sodium phosphate (which increased dissociation of oxygen) improved the ECG tracing.

LABORATORY VALUES[5-8, 31-38]

It is impossible at the present time to give accurately the laboratory values which occur during the hypothermic state. The values listed below are taken from many sources, animal experimentation and human subjects with a variety of illnesses, and are intended only as a guide. Leukocytes are increased. Platelets and sedimentation rates are decreased. No significant change has been noted in the serum values for calcium, sodium or chlorides. Serum potassium has been described as increased,[11] normal,[31, 35] or decreased.[1, 39, 40] Swan emphatically states that with hypothermia, when hyperventilation of the lungs is employed, the serum potassium is lowered. Blood glucose is elevated. Blood urea nitrogen level is normal. The blood pH is lowered. Blood viscosity is greatly increased. Basal metabolic rates of minus 6 to minus 25 have been recorded by Smith and Fay.[6, 7] As to the electrocardiogram[11, 27, 30, 34] a decreased rate is noted. The PR interval is prolonged, the QRS complex is widened, and the T wave may be lowered. In humans, auricular fibrillation is rather common.

METHODS OF COOLING

All patients are anesthetized and an endotracheal tube inserted. Anesthesia is used for humane reasons and also to prevent shivering. The latter phenomenon has been shown to markedly increase oxygen consumption and also to make cooling more difficult. This was vividly shown by Behnke,[41] who reported 2 human volunteers who remained shoulder deep in water at 5.5–10°C (42–50°F) for 1 hour. Their BMR was increased 5 to 6 times. Due to shivering, the rectal temperature was reduced to only 35°C (95°F) despite the prolonged immersion. Preferred anesthetic agents vary from clinic to clinic. Some use pentothal; others prefer ether or cyclopropane, criticizing the use of a fixed anesthetic agent in a patient whose metabolism is to be reduced. The temperature is constantly recorded during cooling and surgery by use of a thermocouple placed in the rectum. Continuous ECG tracings are made. During anesthesia the patient is hyperventilated at a respiratory rate of 30 to 35 times a minute.

This is done deliberately to create a respiratory alkalosis to be discussed later.

A decision is made beforehand as to the desired temperature for surgery in the particular individual. The measure to produce hypothermia is terminated several degrees above this desired value, since the patient's temperature will continue to fall several degrees despite removal of the hypothermic agent.[33]

It has been recommended to cool the patient in the position for surgery so as to create a postural ischemia.[37] The tissues have a cold feeling but not markedly so. With the lower ranges of temperature bleeding from the incision may be less than usual because of vasoconstriction and low blood pressure. Careful hemostasis is therefore essential.

Surface Cooling

A. *Blanket method.*[42] The anesthetized patient is placed between blankets which zip together resembling a sleeping bag. The blankets contain coils through which a solution at 20 to 25°C (68–77°F) can be circulated. In 1 to 3½ hours, depending on the size and bodily build of the patient, the temperature can be reduced to approximately 28–29°C (82–84°F). This is the method preferred by Bailey,[15] DeBakey and Lewis[43, 44] and for adults by Bigelow.[45] Disadvantages are the cost of the necessary equipment ($1,500) and the long time required for reduction of temperature.

B. *Bathtub method.* This method was introduced by Swan.[39] After induction of anesthesia the patient is placed in a bathtub which is mounted on wheels and contains ice water (temperature 0–2°C). Great care is taken to see that the head and neck are kept out of the water. The Nazi investigators found that if these areas were submerged in ice water cerebral hemorrhage and death frequently resulted.[33] The rate of cooling again depends on the size of patient. A period of 30 minutes to 2 hours is required to reduce the body temperature to 28°C (82°F). Advantages of this method include rapidity of cooling and ready availability of a bathtub. Objections to this method are that (1) a messy situation easily occurs due to water spilling on an operating-room floor, and (2) the anesthetist is placed in an awkward physical position for 1 to 2 hours. The bathtub method is favored by Swan and Scott,[39, 46] and for infants by Bigelow.[45]

C. *Plastic bags.* The use of plastic bags (polyethylene) filled with ice to surround the patient has been advised.[47] The bags are the type used to contain foods placed in a deep-freeze unit. The skin of the patient should be moistened to hasten temperature reduction. This method will produce cooling nearly as rapidly as a tub. This is the method preferred by me, since the bags are cheap, easy to handle and very practical.

D. *Intrapleural cooling.* Blades and Pierpont[48] have recently discussed this method of cooling. Hypothermia is accomplished by passing a constant stream of cold saline into the pleural cavity where it comes in contact with the great vessels. The excess saline is removed by suction. The method is slower than those mentioned above.

Advantages of the method are: 1. The thoracic cavity is open in case ventricular fibrillation occurs. Indeed, if any cardiac arrhythmia occurs the heart can be sprayed with warm water so as to raise its temperature. 2. In the event of a misdiagnosis and one is faced with the necessity for hypothermia at the time of open thoracotomy, he can start to reduce the temperature immediately. Disadvantages would be the amount of cold and warm saline which must be kept available. The authors used 75 liters in the case reported. Also, it would seem inevitable that a messy situation would occur with the volume of fluid used.

EXTRACORPOREAL COOLING[13, 49]

Hypothermia is accomplished by removing arterial blood from the body, passing it through coils surrounded by ice, and returning it to one of the patient's veins. Heparin is used to prevent clotting. Hypothermia is produced more rapidly than by any other method; the temperature is reduced 0.5°C per minute. There are certain inherent dangers, such as the possibility of air embolism, clotting in the system, permanent damage to the artery or vein used, and mechanical difficulties with the pump.

AUTONOMIC BLOCKING AGENTS COMBINED WITH MILD HYPOTHERMIA

Laborit[50] in 1951 sought to produce a state which he labeled "artificial hibernation" by use of a "lytic cocktail" and mild hypothermia. Promethazine (phergan), meperidine (pethidine) and chlorpromazine (thorazine) comprise the cocktail which was designed to block the autonomic nervous system. Such blockage was conceived to prevent futile exhausting efforts on the part of the body to resist temperature fall. Mild hypothermia, 34–35°C (93–95°F), was then used for surgery.

Dundee and his group[51, 52] investigated this method. They found oxygen consumption to be reduced only slightly. There was a marked and unpredictable fall in blood pressure with the use of the "lytic cocktail." The patients tolerated hemorrhage, even of a mild degree, poorly. When they investigated the various components of the cocktail, they found that chlorpromazine was the sole effective agent. It would seem that this method is overrated, does not produce clinical hypothermia, and is indeed dangerous.

Other combinations or variations have been used—"lytic cocktail" and the usual methods of anesthesia,[53] chlorpromazine and the refrigerant blankets,[54] extracorporeal method in combination with a pump-oxygenator,[55] and differential hypothermia.[56] This last method is of some interest. By use of extracorporeal cooling, Parkins and associates[56] could reduce the temperature of the animal's brain to 20°C while the systemic temperature was only 32°C (90°F). At these temperatures they could occlude the entire circulation for 30 minutes without difficulty.

Rewarming the Patient

All agree that this should be done as rapidly as possible.[33] Usually surgery is performed with the patient on a rubber mattress through which warm water is circulated. At the conclusion of the procedure the patient may be placed in a tub of warm water at 40–45°C (104–113°F), or a warm solution may be circulated through the special blankets. Electric blankets, diathermy, or ordinary blankets combined with hot-water bottles may be used.

As a rule, warming requires slightly longer than cooling. Attempts to raise the temperature are stopped at 33–35°C (91–95°F), since these patients tend to develop hyperpyrexia. If this latter does occur, it is easily controlled by ordinary measures such as aspirin and alcohol sponges. Respirations, blood pressure and pulse reverse the course noted during the production of cold.

Adjuncts

Transfusion. Bailey and Cookson[15, 57] consider ordinary citrated blood to be toxic to the hypothermic myocardium and a cause of ventricular fibrillation. In their clinic red blood cells in a Gelatin-Ringer's solution are given intra-arterially. With open cardiotomy they transfuse into the arch of the aorta, thus raising aortic pressure above that of the left ventricle. With such elevated aortic pressure the aortic valves remain closed; hence air emboli from the open cardiotomy cannot reach the coronary circulation. This method also improves circulation to the brain and myocardium via the coronaries. This improvement, in their opinion, prolongs the time that the circulation can be safely interrupted.

Hyperventilation of the lungs. Bigelow's first report in 1950 showed that interruption of the circulation was possible with the aid of hypothermia. However, the mortality rate of 50 per cent was prohibitive, and most of the deaths were due to ventricular fibrillation. When Swan began his experimental work, he sought to find a method of preventing ventricular fibrillation. His group was aware of the fact that the blood CO_2 level is high with hypothermia because of diminished respiratory rate and increased solubility of CO_2 at low temperature. Other investigators, particularly Brown and Miller,[58] had pointed out that a rapid fall of a high blood level of CO_2 was a strong stimulus for ventricular fibrillation. The Denver group experimented with hyperventilation of the lungs during hypothermia to prevent such CO_2 accumulation. With hyperventilation they were able to reduce the incidence of ventricular fibrillation to 8 per cent.[39, 40]

Fleming[35] published similar studies in 1954. He found an uncompensated acidosis of the blood during hypothermia. By using 100 per cent oxygen to hyperventilate the lungs the blood pH remained constant and the plasma CO_2 content was lowered. With such hyperventilation ventricular fibrillation did not occur in his series. On the basis of these studies hyperventilation for the deliberate creation of a respiratory alkalosis is now used by anesthetists with hypothermic patients. The rate of hyperventilation is 30 to 35 times a minute.

Indications

1. *Cardiac surgery with interruption of the circulation.* A bilateral anterior thoracotomy is performed. The azygos vein is ligated, and the superior and inferior venae cavae are occluded. Because of the danger of air embolism with the open cardiotomy the aorta and pulmonary artery are also occluded. After these maneuvers the heart can be opened safely and a direct surgical attack made on the lesion.

Interruption of the circulation at normal temperatures is conceded to be tolerated for 2 to 3 minutes. At a temperature of 28°C (82°F) the circulation can be interrupted safely for 8 to 10 minutes. Bigelow[45] has pointed out that if a safe means could be found to reduce the temperature to 20°C (68°F) the period for circulatory occlusion could be increased to 20 minutes. The most common lesion which has been treated by this method is atrial septal defect. Other lesions include isolated stenosis of the pulmonic valve, interventricular septal defect, transposition of the great vessels, and total anomalous pulmonary drainage.

The temperature range used for open cardiotomy has varied from 20° to 28°C (68–82°F). It is realized by all that ventricular fibrillation is more common in the temperature range below 26°C (79°F).

2. *Cardiac surgery without interruption of the circulation.* In this group hypothermia is used to improve the operative risk usually attendant on such surgery. Lesions so treated include cyanotic heart disease, such as the tetralogy of Fallot, or acquired heart disease, such as mitral regurgitation, aortic regurgitation and mitral stenosis in patients with chronic heart failure. In the congenital group immediate benefit is derived from reduction of oxygen need. The patient's cyanosis improves or recedes with hypothermia. In the older patients with acquired heart disease severe hypotension with anesthesia and surgery is a frequent problem at normal temperatures. With reduced temperatures this complication is not as common. The temperature range used in this group is higher than for group 1, 28–30°C (82–86°F), during surgery.

3. *Aortic surgery for resection of aneurysms.*[59] Since the time of Carrel it has been accepted that clamping the thoracic aorta beyond a certain period of time resulted in spinal cord damage with neurologic sequelae such as lower extremity paralysis or paraplegia. Blalock and Park[60] found that in dogs, if the thoracic aorta below the subclavian was occluded for 40 to 65 minutes, weakness or paralysis of the hind limbs occurred in half, and Gross and Hufnagel[61] found that no damage occurred if the aorta was clamped less than 10 minutes. In a series of 7 dogs they packed the backs of the animals with ice and then clamped the aorta for time periods ranging from 12 to 45 minutes. Only 1 dog developed paralysis. Although they did not record temperatures, they pointed out that "the cooling of the

animal and probably reduction of its oxygen needs had a distinct effect in sparing the spinal cord from damage."

Beattie and associates[62] cooled dogs down to 30°C (86°F) and then clamped the thoracic aorta below the subclavian artery. In 10 dogs the aorta was clamped for 60 minutes. One questionable case of hind limb paralysis occurred. In an additional 5 dogs the aorta was occluded for 90 minutes. No paralysis occurred. Similar experimental results have been reported by Pontius and Owens.[63, 64]

Such experimental knowledge has been applied clinically. Hypothermia, by reducing the oxygen requirements of the spinal cord, enables the surgeon to occlude the aorta, resect a thoracic aneurysm and insert a vascular graft. In performing such a procedure, DeBakey and Cooley[43, 65] have clamped the thoracic aorta as long as 62 minutes without sequelae. In the second case reported in this paper the thoracic aorta was occluded for 69 minutes.

Occlusion of the abdominal aorta is well tolerated for considerable periods of time at normal temperatures. Pontius[63] discusses a series of 40 patients with abdominal aneurysm and 22 patients with thrombo-obliterative disease of the abdominal aorta. Surgical treatment of these lesions required clamping the abdominal aorta for over an hour for the insertion of vascular grafts. No patients developed neurologic sequelae.

4. *Other indications:* Occlusion of carotid arteries in neurosurgery, production of hypotension combined with lowered oxygen requirements, such as bleeding peptic ulcer and bleeding esophageal varices, thyrotoxicosis, pulmonary resection in adults with pulmonary insufficiency, and severe infectious states attended with high temperatures, rapid respirations and marked tachycardia.

COMPLICATIONS

Ventricular fibrillation is the most dreaded of all complications. The use of hyperventilation in preventing its occurrence has been discussed under adjuncts. A hypothermic heart is more prone to fibrillation than a heart at normal temperature,[66] and this complication had been encountered by all workers in this field. The ease in reverting fibrillation in the hypothermic heart is debated. Bailey and Lewis state that they have encountered no difficulty. Other authors[20, 39, 40, 46, 67] state that the complication is far more difficult to treat than when it occurs under normothermic conditions.

In the course of various laboratory tests of the blood of hypothermic animals, Swan found a decreased serum potassium. In these same animals when ventricular fibrillation did appear he was unable to revert the fibrillation by the standard treatment, electric shock. Swan, therefore, injected potassium into the general or coronary circulation. The drug alone or in combination with electric shock reverted the ventricular fibrillation.

Since the fibrillating myocardium loses potassium the Denver group sought agents which would affect the passage of potassium across the cell membrane. Montgomery[68] has reported that acetylcholine could influence the passage of this ion. Prostigmine has a similar effect since it is an anticholinesterase. In the laboratory, use of either of these drugs via coronary perfusion could prevent fibrillation following a standard stimulus for fibrillation in the cold heart—ventriculotomy. Clinical success has been such that Swan now believes that all persons undergoing hypothermia and especially cardiotomy should routinely receive prostigmine. This latter drug is the one of choice because of its longer action.

It is interesting to note that pneumonia has not been reported even in human cases of prolonged hypothermia.[8, 41] Smith[6] reported the autopsy studies on patients who had a hypothermia of 31–33°C (88–90°F) for 4 to 5 days for its supposed beneficial effects on carcinoma. Pneumonia was seen only in patients who had chronic lung disease or had pulmonary metastases.

Subcutaneous fat necrosis has been described by Collins[69] in a 4½-month-old infant. Hypothermia was induced by ice in plastic bags. The author attributes the complication to the fact that subcutaneous fat in an infant has a different chemical composition than in an adult.

Auricular fibrillation has been commonly noted in human cases.[1, 8, 32] It usually appears in the temperature range of 29–31°C (84–88°F). It is not considered of serious import and disappears on rewarming.

SUMMARY

Hypothermia is a valuable adjunct in surgery. Its greatest value is the fall in oxygen requirements which parallels the temperature drop. Pulse, blood pressure and respirations decrease with the progress of the cold state. With temperatures below the clinical range of 23–30°C (73–86°F) death occurs from cardiac failure.

Various methods of cooling may be used. I prefer ice in plastic bags. Shivering must be prevented because it raises the oxygen consumption. Hyperventilation of the lungs is employed. Rewarming may be accomplished by hot-water bottles and blankets.

The indications include cardiac lesions which require open cardiotomy for surgical attack under direct vision. With the aid of hypothermia the circulation can be completely interrupted for 8 to 10 minutes.

The most dreaded complication is ventricular fibrillation. Measures are outlined for its prevention and treatment.

Two illustrative case reports follow.

ILLUSTRATIVE CASES

Case 1. E. S., a 32-year-old white woman, was referred by Dr. Merton L. White. Her history dated back to childhood when she noted that she could not compete in games with other children. Since that time she had always restricted her physical activities. At the age of 19, after a preëmployment physical examination, she was told she had rheumatic heart disease. Pregnancy occurred at the age of 21. Medical advice was to have a therapeutic abortion. She and her husband decided to proceed with the pregnancy. Her prenatal course was not remarkable except that syncopal attacks occurred. Labor was long and difficult because of a breech presentation. Cardiac decompensation complicated delivery. The patient was digitalized and treated with absolute bed rest for several weeks.

Because of continuing syncopal attacks and weakness she consulted a physician when she was 26 years of age. Rheumatic heart disease was again diagnosed and digitalis was advised. The patient took this medication irregularly.

She again sought medical advice in October 1954. The syncopal attacks had increased in severity. She described several attacks of "bronchial asthma" which were apparently pulmonary edema. She felt that symptoms had definitely progressed in the past 14 months. Dyspnea occurred with climbing a flight of stairs or walking half a block. The patient stated that she was limited to 1 hour of activity a day. After this time limit fatigue was such that she required bed rest. Cyanosis had never been noted.

On physical examination the blood pressure was found to be 140/90 and the pulse rate 90. There was a systolic thrill over the precordium, and a loud, harsh (grade 4) systolic murmur was heard over the entire precordium, which was loudest in the second and third interspaces just to the left of the sternum. An electrocardiogram showed right bundle branch block and right axis deviation.

X-rays films showed marked increase in the cardiac silhouette due primarily to right ventricular enlargement (figure 1). Both pulmonary arteries were enlarged, with marked pulsations on fluoroscopy.

Cardiac catheterization was performed by Dr. Robert T. Kelley on November 9, 1954 and showed the following:

Location	Oxygen Content (Volumes %)	Oxygen Saturation, %	Pressure, mm. Hg	
			Systolic	Diastolic
Superior vena cava	10.1	65		
Right atrium (mid)	12.4	80	8	3
Right atrium (low)	13.8	89		
Right ventricle (inflow)	14.1	91	33	9
Right ventricle (outflow)	13.5	87		
Pulmonary artery	13.2	85	33	13
Femoral artery	14.4	93	122	80

The oxygen capacity was 15.5 volumes per cent. The catheter could not be passed into the left auricle. Surgery was advised. Digitalization was performed with little or no subjective improvement.

Hypothermia was deemed advisable so that the circulation could be interrupted for direct repair of the defect under direct vision. The patient was admitted to Providence Hospital, and surgery was performed on December 5, 1954. Dr. John Leahy was the anesthetist. Continuous ECG tracings were monitored by Dr. Kelley. The rectal temperature at the start of hypothermia was 37°C. Cooling was achieved by use of a bathtub and ice water. The temperature was reduced to 31°C (88°F) in 2 hours. The lowest temperature level during surgery was 28°C (82°F). The pulse and blood pressure was unobtainable by the usual methods below 31.5°C (87°F). The pulse rate was recorded from the ECG tracing.

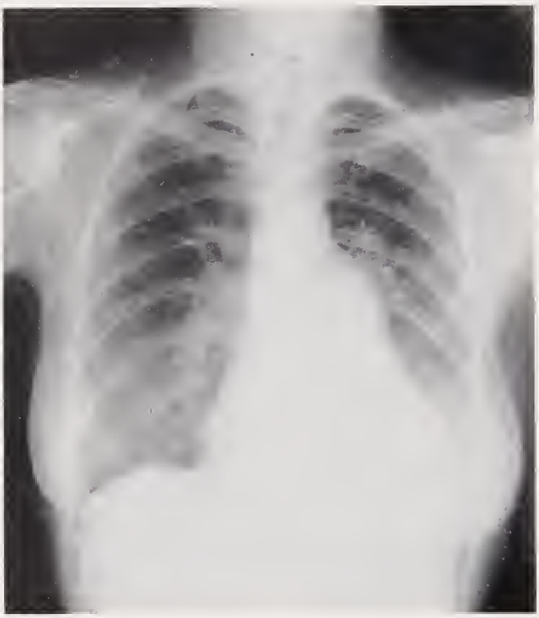

Fig. 1. Case 1. Enlargement of right ventricle and pulmonary arteries.

A bilateral anterior thoracotomy was performed, the sternum being transected with a Gigli saw. The pericardium was opened widely. A procaine block of the sino-auricular node was performed as suggested by Dr. Leo Radigan. A purse-string suture was placed in the right auricle and the right index finger of the operator inserted. A large defect was palpated; it admitted 2 fingers. The mitral valve was explored through the left auricle and was normal. The defect was of the septum secundum variety. The openings of the superior and inferior venae cavae and the coronary sinus were noted.

The azygos vein was ligated. The superior and inferior venae cavae were occluded. After the heart emptied itself of blood another clamp was applied to occlude the aorta and pulmonary artery. The right atrium was opened widely. The main defect and 2 smaller defects were seen by direct vision. The palpating finger did not reveal these smaller defects. Interrupted 3-0 silk sutures were used to close all defects. Eight and a half minutes were consumed in closing the defects. At the conclusion of the repair the heart action appeared irregular. When the superior vena cava was released, ventricular fibrillation ensued. The myocardium was dilated and flabby. Cardiac massage and epinephrine (1 to 10,000) were used to restore myocardial tone. Electric shock was applied, and ventricular fibrillation resorted to standstill. The heart spontaneously resumed a slow, regular rhythm. The auricular wall was closed with a running suture. The pericardium was closed loosely. The bilateral thoracotomy incision was closed, and both pleural cavities were drained with underwater seal bottles.

At the conclusion of surgery the temperature was 30°C (86°F). Rewarming was accomplished in a tub of warm water. The patient was returned to her room with a temperature of 36°C (96.8°F), a blood pressure of 80/40, and a pulse rate of 60.

The postoperative course was marked by severe chest pain. The murmur was decreased in intensity. Progress was slow but constant. The patient was discharged home on the fourteenth postoperative day.

On return home digitalis was stopped. No improvement was noted in the first week, and during the second week the condition regressed. Dyspnea on exertion was a marked complaint. Physical examination and X-ray films revealed congestive heart failure. Digitalis was again employed. Over the next month progress was constant. X-ray films on February 17, 1955 showed marked improvement with considerable regression of the heart size and the pulmonary arteries abnormally enlarged but decreased over the preoperative finding. At this time the patient is resuming duties as a housewife and considers herself greatly benefited by surgery.

Sincere appreciation for invaluable advice and surgical assistance is expressed to Drs. A. Glenn Morrow and Leo R. Radigan, Heart Institute, Clinical Center, National Institutes of Health.

Case 2. J. C., a 47-year-old man, was referred by Dr. J. Raymond Raedy because of an aneurysm of the thoracic aorta. In 1951 the patient began to have sharp, stabbing, left anterior chest pain. Complete physical examination including an electrocardiogram was negative. A chest film revealed a mass in the left thorax which was considered to be vascular in origin. Periodic X-ray films were unchanged until October 1954, when the mass increased in size over the previous examination (figure 2, A and B). An almost constant left chest pain (anterior) was now present. No history of lues was obtained.

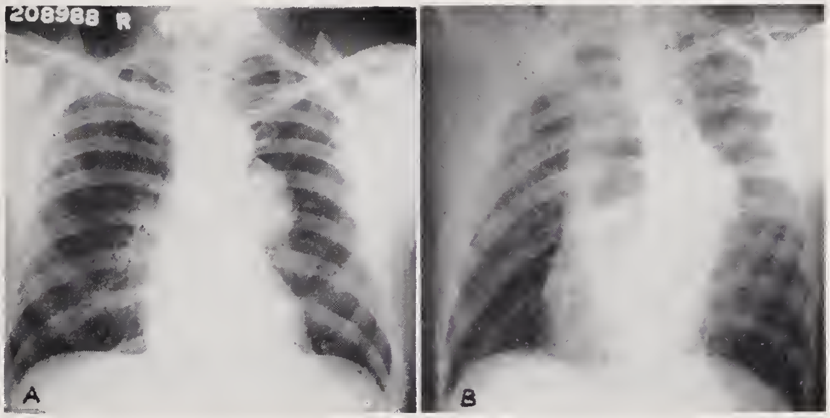

Fig. 2-A and B. Case 2. Aneurysm of descending aorta.

Physical examination was entirely negative. The blood pressure was 150/90. The blood serologic examination was negative.

An angiocardiogram was performed by Dr. Robert T. Kelley. The films were interpreted to show a saccular aneurysm of the descending aorta below the left subclavian artery. It was proposed to resect the aneurysm and repair the lateral aortic wall as recommended by Bahnson and Cooley.[70-73] This procedure could be done at normal temperatures and without interrupting the circulation.

The patient was admitted to Providence Hospital. A left thoracotomy was performed on December 10, 1954. Dr. John Leahy gave the anesthesia. To our dismay a fusiform arteriosclerotic aneurysm, measuring 8 by 4 by 4 cm., was found just below the subclavian artery. There were arteriosclerotic plaques in the aortic arch and just above the aneurysm. It was obvious that only graft replacement would adequately remedy this condition. The incision was closed. The patient was surrounded by plastic bags containing ice. A freeze-dried human aortic graft was obtained from Walter Reed Army Medical Center.* The patient's temperature was reduced to 33°C (91°F) in 2 hours. At this level the blood pressure was 100/70 and the pulse 60. The ice packs were removed and the incision was reopened. The lowest temperature reached during surgery was 31°C (88°F).

The aorta was mobilized above and below the aneurysm, and tapes were applied. With possible hemorrhage thus controlled, the aneurysm itself was carefully mobilized. The mass was irregular, showing evidence of recent hemorrhage, and in certain areas the adventitia was the only structure containing blood. Following such mobilization the aorta was clamped and the aneurysm resected, and a 9 cm. graft was inserted using 4-0 silk sutures (everting mattress). Great difficulty was encountered in sewing the superior portion of the aorta because of severe arteriosclerosis. The aorta was clamped for 69 minutes before the blood flow was restored through the graft. The incision was closed routinely.

At the conclusion of the procedure the patient was rewarmed by blankets and hot-water bottles. On return to his room the temperature was 33°C (91°F), the blood pressure 130/80, the pulse rate 100.

The postoperative course was very benign. The patient was carefully questioned for possible complications of the prolonged aortic occlusion. He noted some numbness of the right foot. This disappeared when ambulation was permitted on the fourth postoperative day. The patient has remained well and has returned to work.

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INTRACTABLE HEART FAILURE—INFLUENCE OF HYPERTENSION[*][†]

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HEART failure in hypertensive heart disease often becomes resistant to standard therapeutic management. The factors usually considered in the reëvaluation of such cases include adequacy of digitalis dosage, restriction of physical and emotional stress, restriction of sodium intake and absorption, maximum use of diuretics, and chloride depletion.[1, 2, 3] Contributory pathophysiologic states such as anemia, masked thyrotoxicosis, recurrent pulmonary emboli, and avitaminosis are also evaluated.

Hypertension itself is seldom recognized by the physician or listed in textbooks as an important factor in intractable heart failure. Indeed, some investigators consider the hypertension incidental, and the associated coronary arteriosclerosis the key feature in the heart failure of hypertensive heart disease.[4, 5] Coronary atherosclerosis undoubtedly is a controlling factor in many cases of heart failure in hypertensive heart disease.

We wish, however, to present some clinical and laboratory observations which suggest that in certain instances hypertension with the attendant increased peripheral resistance and increased ventricular work against pressure appears to be a critical factor in the perpetuation and progression of heart failure in hypertensive heart disease. We believe that in the future increasing attention will be given to clinical measures for the alteration of peripheral resistance in the management of ventricular insufficiency, both acute and chronic.

Clinical Observations

The two following case reports demonstrate the effect of lowered blood pressure in congestive heart failure of hypertensive origin.

Case 1. Patient R. M. was a 59-year-old housewife who was known to have had hypertension for at least 15 years. She had been short of breath on exertion during the preceding 2 years. During the 2 months immediately preceding hospitalization dyspnea was present on slightest exertion; orthopnea was of such severity that she had been forced to sleep sitting in a chair. A review of her medication indicated adequacy of digitalis dosage and salt restriction. She was receiving salyrgan intramuscularly from 2 to 4 times per week. In spite of this therapy congestive heart failure persisted in severe form, and hospitalization was finally recommended by her physician. Figure 1 shows control blood pressures and the vascular sensitivity of this patient to hexamethonium.

The previous medications were continued, and in addition the patient was given subcutaneous hexamethonium, 10 to 15 mg. every 8 hours for the next 3 weeks. The dosage of hexamethonium was so adjusted

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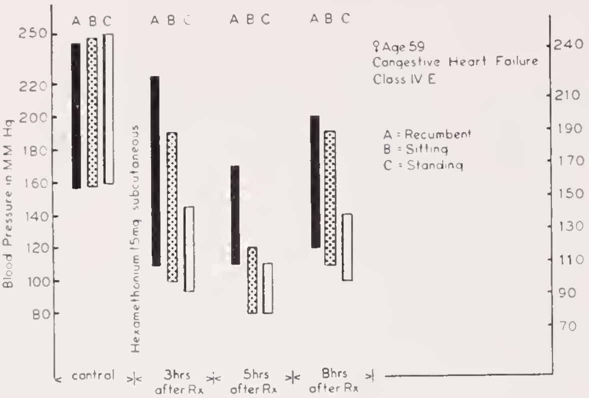

FIG. 1. Hypotensive effect of hexamethonium subcutaneously.

that the blood pressure in the standing position ranged from 100/70 mm. Hg to 145/90 mm. Hg (recumbent 180/110). Occasionally the patient noted slight dizziness about 2 hours after the morning dose.

Figure 2 shows the changes in cardiac compensation which occurred during this 3-week period. She soon lost all orthopnea and walked about the ward at will, without dyspnea. It was of interest to note that the non-protein nitrogen level at the end of this period did not show significant elevation above that on admission.

Case 2. A similar but more severe problem is illustrated in a 48-year-old man with hypertension of 12 years' known duration. He was disqualified for army service in 1940 because of hypertension. In February, 1951 his only complaint was shortness of breath on moderately severe exertion. In October, 1951 he developed frank heart failure which responded well initially to digitalis and diuretic therapy. Six months later, however, this patient developed malignant hypertension with bilateral papilledema. His congestive failure no longer responded to the previously effective digoxin and diuretic therapy. After the development of malignant hypertension we considered his prognosis hopeless unless he could be carried safely through a bilateral sympathectomy. He was admitted to the hospital in an effort to

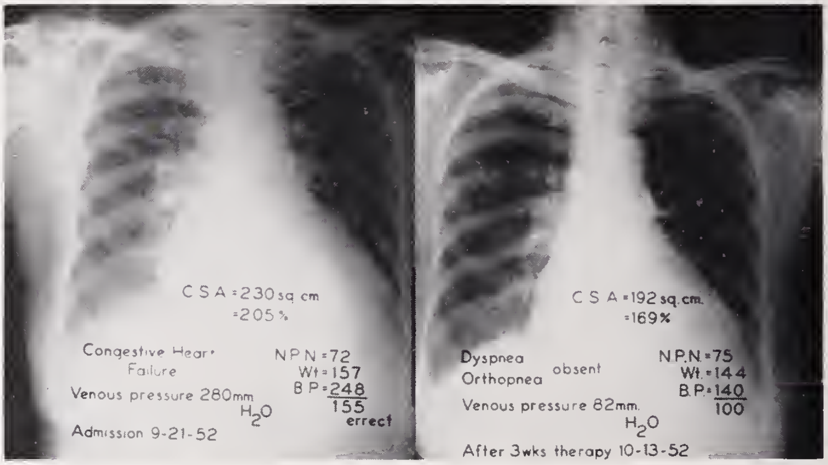
C S A = 230 sq cm
= 205 %
Congestive Heart Failure
N P N = 72
Wt = 157
B P = 248/155 errect
Venous pressure 280mm H₂O
Admission 9-21-52
C S A = 192 sq. cm.
= 169 %
Dyspnea
Orthopnea
absent
N.P.N. = 75
Wt. = 144
B.P. = 140/100
Venous pressure 82mm. H₂O
After 3wks therapy 10-13-52

FIG. 2. Improvement in cardiac compensation during 3-week period when hexamethonium was added to cardiac therapy.

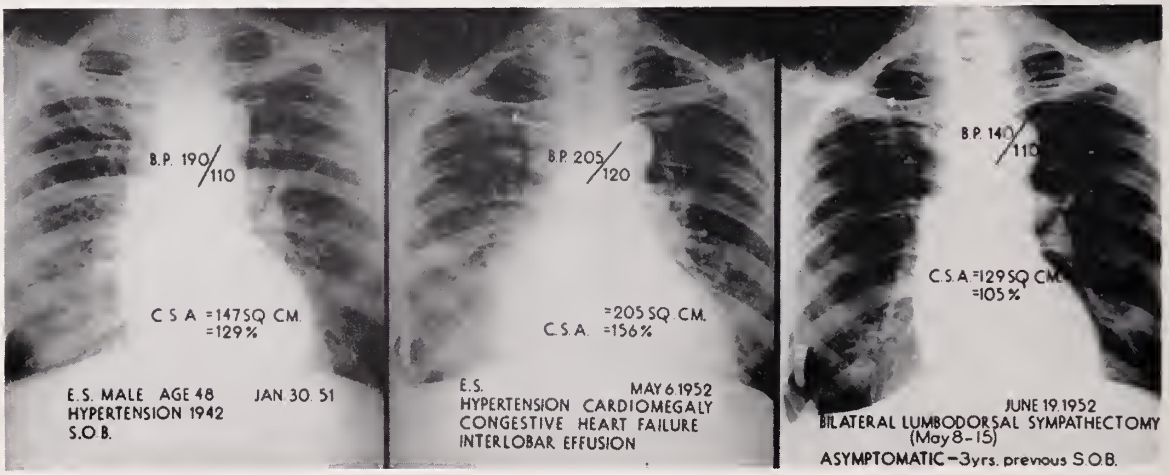
B.P. 190/110
C S A = 147 SQ CM.
= 129 %
E.S. MALE AGE 48
JAN 30 51
HYPERTENSION 1942
S.O.B.
B.P. 205/120
= 205 SQ CM.
C.S.A. = 156 %
E.S.
MAY 6 1952
HYPERTENSION CARDIOMEGALY
CONGESTIVE HEART FAILURE
INTERLOBAR EFFUSION
B.P. 140/110
C.S.A. = 129 SQ CM.
= 105 %
JUNE 19 1952
BILATERAL LUMBODORSAL SYMPATHECTOMY
(May 8-15)
ASYMPTOMATIC—3yrs. previous S.O.B.

FIG. 3. Complete disappearance of signs and symptoms of congestive heart failure after reduction in blood pressure following bilateral lumbodorsal sympathectomy.

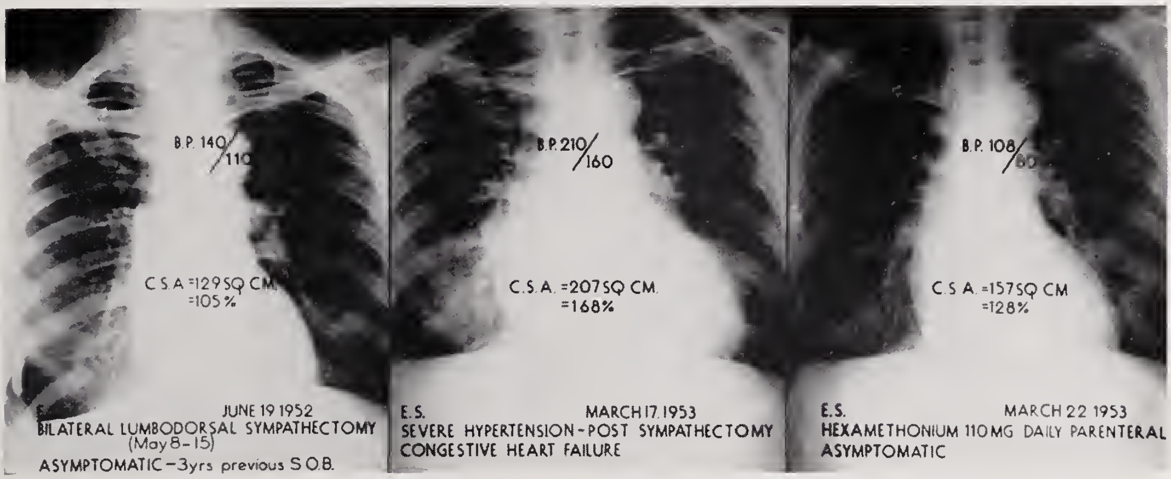
B.P. 140/11
C.S.A =129 SQ CM
=105%
JUNE 19 1952
BILATERAL LUMBODORSAL SYMPATHECTOMY
(May 8-15)
ASYMPTOMATIC-3yrs previous S.O.B.
B.P. 210/160
C.S.A. =207 SQ CM.
=168%
E.S.
MARCH 17 1953
SEVERE HYPERTENSION-POST SYMPATHECTOMY
CONGESTIVE HEART FAILURE
B.P. 108/80
C.S.A. =157 SQ CM
=128%
E.S.
MARCH 22 1953
HEXAMETHONIUM 110 MG DAILY PARENTERAL
ASYMPTOMATIC

FIG. 4. Recurrence of severe hypertension and congestive heart failure postsympathectomy. Immediate cardiac compensation with parenteral hexamethonium and digitalis after digitalis alone was ineffective.

achieve sufficient cardiac compensation to permit lumbodorsal sympathectomy.

The patient's hypertension was found to be very responsive to parenteral hexamethonium. The drug was continued at such dosage to maintain the blood pressure at normal levels, following which cardiac compensation became adequate to allow bilateral sympathectomy. Figure 3 shows changes in heart size and blood pressure following lumbodorsal sympathectomy. The patient was able to return to his previous occupation. About 7 months post-sympathectomy the patient's blood pressure again reached hypertensive levels. In March, 1953 the diastolic pressure was up to 160 mm. Hg and congestive heart failure became severe. The blood pressure remained responsive to parenteral hexamethonium, and cardiac compensation was again achieved (figure 4). This patient is now under hypotensive therapy with pentolinium tartrate (Ansolysen).

In some of our hypertensive patients we have measured left ventricular work against pressure as influenced by intravenous hexamethonium. Representative data on one of these patients are presented in table 1. The cardiac output ex-

TABLE 1

Influence of Intravenous Hexamethonium on the Cardiac Output and Left Ventricular Work

Period	State	Heart Rate per Minute	Mean Pressure, mm. Hg		Cardiac Output		Ventricular Work against Pressure, Kg-M per Min.		Left Ventricular Work, Kg-Meters/Min. per Liter Systemic Blood Flow
			Brachial Artery	Pulmonary Artery	L/Min., BSA	Stroke Volume, c.c.	Right	Left	
1	Control	109	158	14	5.28	75	0.83	11.59	1.43
2	Control	112	148	16	6.45	89	1.20	13.23	1.33
3	Control	116	150	15	5.75	76	0.99	11.96	1.35
4	Control* 30°	133	160	11	3.41	39	0.39	7.58	1.44
			Observations Following 25 Milligrams Hexamethonium Intravenously						
5	45 Minutes	100	77	11	2.88	44	0.33	2.98	0.67
6	100 Minutes	96	78	6	2.79	45	0.12	2.92	0.68
									51% decrease
	Average Normal Values	80	85	15	3.2	45	0.4-1.21	3.67	

* Observations made with patient at 30° toward upright position. All other periods done with patient in full recumbency.

ceeded the normal range during the first 3 control periods with the patient in a recumbent position. The fourth control study was done when the blood pressure had stabilized with the patient tilted 30° toward the upright position. With the patient in this position a decrease in cardiac output occurred, resulting in a distinct decrease in left ventricular work. It is striking to note, however, that although the total left ventricular work decreased, the left ventricular work required per liter of cardiac output actually increased from an average of 1.37 to 1.45 kilogrammeters per minute.

Twenty-five milligrams of hexamethonium was given through the cardiac catheter with the patient still tilted 30°. The blood pressure fell too rapidly with the patient in this position. The patient was returned to the horizontal position, whereupon her blood pressure stabilized in a normal range and remained so for at least 2 hours. Left ventricular work was again measured under these conditions (periods 5 and 6—table 1). A significant decrease in left ventricular work against pressure was observed. Of more importance, however, was the observation that following hexamethonium, each liter of blood pumped by the left ventricle required 51 per cent less left ventricular work against pressure than during the control period, falling from 1.39 kilogrammeters per liter to 0.67 kilogrammeters per liter blood flow per minute.

Not every patient with hypertensive heart failure shows dramatic reduction in heart size and improvement in heart failure following diminution of peripheral resistance with ganglionic-blocking agents. Some of our patients in intractable heart failure under this therapy have shown rapid recovery of cardiac compensation but have demonstrated little change in cardiac size. The following case is illustrative of this group.

Case 3. Patient G. W. is a 54-year-old woman, known to have had essential hypertension for at least 10 years. She has been in congestive heart failure intermittently for the past 2 years. In recent months shortness of breath has been present persistently with slightest exertion and there have been episodes of nocturnal dyspnea in spite of digitalization and mercurial diuretics. The patient was admitted to the hospital in this state in order to determine whether the heart failure could be favorably influenced by hypotensive therapy. This patient showed rapid recovery of cardiac compensation after addition of Ansolysen to previous therapy, as evidenced by decreased venous pressure and circulation time and by disappearance of dyspnea. However, there was no significant decrease in heart size (table 2). Cardiac catheterization was performed and studies were made to determine the effect of hypotensive agents on pulmonary arterial pressure and systemic resistance (table 2 and figure 5).

TABLE 2

Improvement in Cardiac Compensation Following Ganglionic-blocking Agents without Significant Decrease in Heart Size

Date	Cardiac Surface Area, Cm.²*	Blood Pressure Standing	Venous Pressure, Mm. Water†	Arm-to-tongue Circulation Time, Seconds	Body Weight, Lbs.
12- 8-54	165	230/130	170/275	26	111
12-15-54	165	162/100			113
12-20-54	164	146/100	130/168	14	114
12-24-54	172	112/74			115
12-27-54	168	180/100	110/120	15	113
1- 5-55	163	108/70			111
1-22-55	163	140/70			112

* Predicted normal—100 Cm.²

† Recumbent control/recumbent after 30 seconds right upper quadrant pressure.

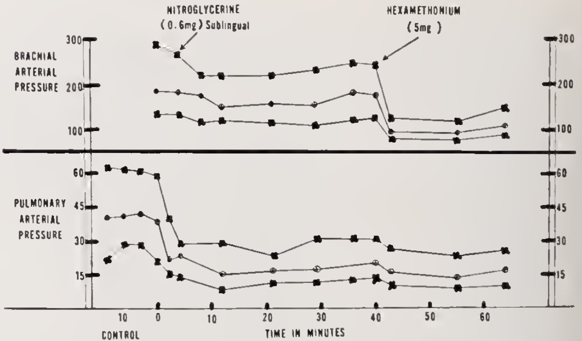

FIG. 5. Effect of sublingual nitroglycerine on pulmonary arterial hypertension associated with heart failure in hypertensive heart disease.

Another group of patients with hypertensive heart failure may fail to show reduction in heart size, and in addition the congestive heart failure may not improve. The following is an example of this refractory state.

Case 4. This patient, W. H., a man aged 58, was known to have had hypertension for several years prior to his first development of heart failure in April, 1953. His blood pressure was 230/130; the arm-to-tongue circulation time was 22 seconds; rales could be heard at both lung bases; and there was two plus pitting edema of the lower extremities. The congestive heart failure improved considerably, and a moderate reduction in heart size occurred following full digitalization and mercurial diuretics. After several months heart failure recurred and became intractable. We then reduced his systemic pressure with Ansolysen to or near normal while digitalis and mercurial diuretics were continued. The congestive failure continued refractory during several weeks of this therapy (table 3).

TABLE 3

Case 3 (W. H.). Reduction in Systemic Pressure without Improvement in Cardiac Compensation

Date	B.P. (Sitting)	Congestive Heart Failure	Ht. Surface Area, Cm.^{2}		Body Weight	Hypotensive Therapy,* Daily Dose—Milligrams		
			Observed	Predicted		Hexamethonium	Serpasil	Apresoline
3- 2-53	230/130	Severe	195	118	178	0	0	0
5- 2-53	195/110	Improved			165	0	0	0
6-13-53	165/95	Improved	172	117	151	300	0	0
3- 1-54	140/80	Mod. severe	222	114	145	750	1.0	200
2-23-55					144	300	0	150
3- 1-55						300	0	150
3-21-55	134/95	Severe	225	114	154	300	0	150

* Full digitalization and mercurial diuretics were continued during the hypotensive therapy in the same dosage as during the preceding months.

During the course of these studies we observed that the reduction in systemic hypertension by ganglionic-blocking agents was far more impressive than was the reduction in pulmonary hypertension associated with severe left heart failure. In other studies by our laboratory (to be published) we have observed that sublingual nitroglycerine effects a remarkable reduction in the pulmonary arterial pressure and in right ventricular work in patients with severe left ventricular failure. Figure 5 demonstrates the effect of 0.6 mg. nitroglycerine sublingually in patient G.W. noted above. Note the prompt and sustained fall in pulmonary arterial pressure and the relatively slight fall in systemic pressure following the use of nitroglycerine. Later, hexamethonium produced a significant fall in systemic pressure. Further studies with nitroglycerine are in progress.

Discussion

The importance of reduction in peripheral resistance and left ventricular work appear fundamental in the management of the failing heart in hypertensive heart disease. Our observations in this regard have been quite convincing in a group of hypertensive patients, studied both clinically and by physiologic means. Data reported by others have been suggestive also, but in some instances the complex nature of the therapy has made the assessment of the effect of hypertension itself difficult because of drastic changes in sodium intake[6-9] or major alterations in electrolyte metabolism and adrenal function produced by the therapy employed.[10, 11] The data presented by a few other investigators, in which improvement in heart failure and heart size was noted following sympathectomy alone[12] and with the use of sympatholytic drugs,[13] more clearly indicate the causal relation between hypertension alone and severe hypertensive heart failure.

Experimental studies in dogs have been reported which clearly delineate the importance of peripheral resistance to left ventricular function. Sarnoff and his associates[14, 15] in their animal experiments have illustrated that systemic vasoconstriction accentuates the physiologic abnormalities of left ventricular failure. In the first place the augmented peripheral resistance greatly increases the work of the left ventricle against pressure and at the same time decreases the volume of blood pumped per kilogrammeter work expenditure. In the second place, systemic vasoconstriction is associated with increased left auricular and pulmonary arterial pressure and increased blood volume in the pulmonary vascular bed, shifted from the systemic circulation.

It is to be expected that not every patient with hypertensive congestive failure should improve by therapeutic measures which reduce systemic resistance and aortic pressure. In the presence of severe organic disease of the coronary arteries when myocardial anoxia is present and presumably coronary vasodilatation is already near maximal, reduction in systemic resistance and aortic pressure may decrease left ventricular work. However, the decreased aortic pressure in the presence of severe coronary artery disease may so lower the coronary perfusion pressure as to further impair coronary flow and left ventricular efficiency. This theoretical possibility to our knowledge has not been demonstrated in man, but in experimental animals it has been closely simulated.[9]

At present we do not have criteria which will allow one to determine in advance which patients with hypertensive congestive heart failure will fail to improve in ventricular function following significant reduction in peripheral resistance. We have not encountered irreversible ill-effect in the careful testing of each patient to determine whether beneficial effect will be obtained with the use of ganglionic-blocking agents.

The observations of the effect of nitroglycerine in reducing pulmonary arterial pressure and right ventricular work are in the preliminary stage. Clinical observations demonstrating the effectiveness of nitroglycerine in nocturnal dyspnea, as well as the experimental data on pulmonary arterial pressure noted above, suggest that further study with nitroglycerine is justified.

SUMMARY

1. A variety of pathophysiologic states as well as physical, emotional and biochemical factors are usually reassessed when heart failure becomes intractable in hypertensive heart disease. The hypertension itself, with the attendant increased peripheral resistance and increased left ventricular work against pressure, is often overlooked as an important factor in the precipitation and perpetuation of congestive heart failure in hypertensive heart disease.

2. Data are presented which demonstrate that in some patients with intractable heart failure in hypertensive heart disease reduction of systemic resistance and systemic pressure to or near normotensive levels results in the achievement of cardiac compensation in patients otherwise refractory to standard cardiac therapy.

3. The reduction of systemic resistance by means of ganglionic-blocking agents was shown to diminish greatly the left ventricular work against pressure and in addition to improve left ventricular efficiency by decreasing left ventricular work against pressure per liter of systemic blood flow.

4. The use of ganglionic-blocking agents, in patients with hypertensive heart disease and severe left ventricular failure, resulted in a much more impressive reduction of the systemic hypertension than in the associated pulmonary hypertension. On the other hand, data were presented which demonstrate that sublingual nitroglycerine results in a rapid decline of the pulmonary hypertension associated with left ventricular failure in hypertensive heart disease.

5. Reduction in systemic and pulmonary arterial resistance and decreased ventricular work against pressure appear to be fundamental in the management of the failing heart in hypertensive heart disease.

(*Continued on page 386*)

MODERN CONCEPTS IN THE TREATMENT OF ACNE

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ACNE is one of the common dermatologic complaints encountered in the daily practice of medicine. This frequency may account for the apathy sometimes exhibited when considering this disease. The reassurance that "you will outgrow it" is little consolation to the adolescent. Sympathetic understanding is an important factor to a good therapeutic approach. However, it is important to recognize that the earlier specific therapy is instituted, the greater will be the success. While the causes of acne are not completely defined, enough is known to provide a sound rationale for therapy. Heredity, glandular activity of puberty, infections, use of iodides and bromides, and dietary imbalance are all interrelated. Since there is no "average" patient with "average" symptoms, acne should not be approached with "average" therapy. Treatment must be varied to meet the individual demands, which are dependent on the many factors present.

Primarily, acne is a disturbance of the pilosebaceous system characterized by an oversecretion of sebum by the oil glands with follicular cornification and plugging. The lesion is a comedo, which becomes inflamed, producing a papule. It may develop into a pustule, a deep nodule or a cystic lesion which may result in scarring. Interestingly, although the association of infection and the acneform lesion is quite common, microbial flora play a very little part in its development. The bacteria found on the skin of the acne patient are the same as that on the skin of normal patients and in approximately the same numbers.

The diagnosis of the disease is simple, and the various types are defined on the basis of the clinical manifestations. Acne conglobata is characterized by the appearance of numerous deep-seated cystic lesions in addition to the common papules of acne vulgaris. The sudden, fulminating severe eruptions of the face, neck and forehead typify pyoderma faciale, which requires specialized care. Acne pustulosa is derived from the type of lesion that the name implies. The occurrence of one or more of the different types may be manifested at one time.

The treatment is as varied as the disease, and no single remedy is all-inclusive. The innumerable proprietaries for acne are often unnecessarily complicated and may contain agents which are the cause for sensitization of the skin.[1] The most important consideration is proper skin hygiene, avoidance of all oily and greasy applications, good nutritional balance, and the avoidance of fatty foods and known sensitizers. It is not the caloric intake nor the amount of a food which is a factor but some of the agents found in these that contribute to the acne flareup in some individuals. Thus, sea foods and okra are best eliminated because of the high iodine content, which is known to aggravate the acne lesion. Similarly, chocolate, cola beverages and nuts present a stimulating condition. A strict diet is not necessary, but a balanced diet is.

Vitamin A deficiency has been associated with hyperkeratosis and follicular plugging, and consequently vitamin A has been used for the treatment of acne. It is not a specific but is useful in the over-all approach. The most satisfactory method of administration is high doses of the water-soluble crystalline vitamin A, 25,000 to 50,000 units daily. Vitamin A intoxication is a possibility on very high dosages and should be kept in mind as a possible complication of treatment.

The use of endocrine products in the therapy of acne has been a matter of consideration for some time. There have been many studies concerned with the interrelationships of the hormones and acne, particularly when the appearance of the lesion is associated with an endocrine stress period. The use of estrogens has been reported to be successful in certain instances,[2, 3] but care must be exercised in their administration. The newer synthetic agents perhaps do not cause the menstrual disturbances as frequently as do the natural or conjugated derivatives. Estrogens should not be administered to those patients evidencing cystic lesions of the breast. Female estrogens should be given to adolescent males with great care and with due consideration of possible change of character and physical retardation. Cortisone intake may result in an acneform lesion, a fact again pointing to an endocrine etiology.

The use of thyroid extract in small doses has benefited some patients, but it is not to be used as the sole agent. The basal metabolic rate should be known prior to therapy and checked frequently throughout. Blood iodine levels are more accurate than basal metabolic studies.

Some consider the local therapy more important than the systemic approach, and the topical measures required vary as widely as in other dermatologic conditions. A goal of local therapy is the production of an astringency and drying with a mild keratolytic action. This helps keep the follicular orifices open and discourages comedo formation. As with systemic procedures, careful consideration must be given to the type of local therapy instituted. The use of X-rays produces dramatic relief in the hands of the experienced physician using a calibrated instrument. X-ray therapy is rarely ever administered to patients under 14 years of age and is seldom used as the sole therapeutic agent. Small repeated dosage of 37½ r units (80 to 100 K.V. unfiltered) may stimulate the absorption of the keratinization in the sebaceous orifices. This form of local therapy should only be administered under the supervision of trained personnel, since the total dosage is limited.

The topical application of sulfur has been used to achieve a drying and keratolytic effect for decades, and lotio alba (White Lotion) is perhaps the most satisfactory form.[4-7] However, lotio alba has several inherent limitations which have reduced its efficiency, resulting in a wide range of therapeutic results. Because it is unstable, it must be prepared fresh.[8] It should be dispensed in small amounts to assure uniform potency during use.[9] Since it is prepared by chemical reaction, the official lotion is relatively inflexible and not readily adapted to the particular patient's needs.

The recent development of Pronac[10] resolves these problems and provides a stable fresh preparation for each application. Pronac consists of a stabilized sulfurated potash coated with an equimolecular film of zinc sulfate separated from each other by a layer of an inert colloid. When Pronac is added to water the instantaneous solution of zinc sulfate occurs. The aqueous dispersion of the colloid permits the solution of the sulfurated potash and thereby causes the reaction to take place. In addition, the inert colloid serves to suspend the precipitated materials, prevents clumping, and promotes a firmer adherence to the solid particles to the surface of the skin. The colloid also acts to retain the gases evolved through colloidal adsorption, thereby reducing any pronounced sulfurous odor.

Pronac is packaged in individual, hermetically sealed dosage units. The patient is instructed to mix the contents of one dosage unit with 1 tablespoonful of warm water and to apply the resulting 4 per cent lotion at bedtime. The excess is discarded and the lotion prepared fresh each time. Generally, night-time use will be sufficient. However, the more severe acne patient may require use during the day. This is usually a problem, since the cosmetic appeal is lacking in the white coating of the polysulfides. A simple and effective means of utilizing the sulfur lotion throughout the day is to cover the application with the patient's own make-up. In the case of the male patient a neutral after-shave powder may be used.

All sulfur products are drying to the skin, and should excessive drying occur the medication is stopped for a few days. The individual responses to any medication are varied. The fair-blonde patient may require a lowered dosage than the dark-complexioned individual. Should the 4 per cent lotion be too strong, it may be reduced in concentration by the addition of more water (for example, 2 tablespoonfuls per unit). Similarly, the more severe and resistant cases may require a higher dosage or fortification by the added properties of witch hazel, which may be substituted for the water. This flexibility is important in adapting the medication to suit the patient's needs. The psychologic factor of providing a routine is an advantage in obtaining patient coöperation.

A series of 92 patients consisting of 54 males and 38 females whose chief complaint was acne were treated with Pronac. The results were most gratifying. A high order of astringency and drying action were observed. Eighty per cent of the group showed good to excellent remission of symptoms and 17 per cent fair improvement. One patient continued to have exacerbation of the acne. A female patient with extreme natural blonde complexion evidenced irritation to the 4 per cent lotion, and a reduced dosage is indicated for this type of patient.

I have found Pronac to be of distinct value in the conservative management of acne. Because of its desirable properties it is adaptable to all regimens and may be used either alone or in conjunction with other procedures.

The use of resorcin and salicylic acid is applicable to the more resistant forms of acne. The proper dosage of these agents is important, since dermatitis due to overtreatment may result. It is wise to use the least amount of medication and those of the simplest formulae in order to avoid irritation and sensitization.

Antibiotics are of value only in infected cases. Most adolescent acne does not justify the risk of an antibiotic sensitivity. The oral and parenteral routes are the most efficient for antibiotic administration when indicated. Because of the secondary role of the microbial factor in the etiology of acne, vaccines and related preparations are of limited value only.

Among the local procedures of value, good personal hygiene ranks high. The skin should be carefully cleaned twice a day. Acute upper respiratory infections, colds, influenza, and any febrile illness may begin anew the development of crops of new papules.[11] It should constantly be borne in mind that frequent flare-ups may occur, even during therapy, and the patient should be advised in order to reduce anxiety and discouragement. Although acne is a difficult disease to "cure," it may be successfully controlled through the institution of therapy designed to meet the individual patient requirements.

SUMMARY AND CONCLUSION

1. There is no single therapeutic approach to the management of acne which is applicable to all patients, and the different procedures employed against this disease are presented.

2. The most successful regimens involve a combination of good personal hygiene, indicated systemic medication, and topical sulfur applications based on the individual needs of the patient.

3. Pronac, a new stabilized polysulfide compound which is presented in a form permitting preparation of a sulfur lotion for the individual patient, provides a highly active and efficient means of achieving local drying and astringency in the remission of the lesion. Eighty per cent of a series of patients treated with Pronac showed good to excellent remission of symptoms.

4. In addition to the therapeutic advantages of Pronac, it permits a flexibility in dosage and administration not available in other topical preparations. The adaptation of specific therapy for the individual patient is thereby facilitated.

(Continued on page 386)

NEPHRECTOMY FOR UNILATERAL (?) POLYCYSTIC KIDNEY DISEASE IN A SIX-DAY-OLD INFANT

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POLYCYSTIC kidney disease is bilateral in the great majority of cases. In many instances in which the clinical and pyelographic findings have revealed unilateral involvement, postmortem examinations have shown cystic disease to be present in the other kidney. According to Herbut,[1] Bell[2] classified cystic disease of the kidneys in 1942 and reported 44 cases in 22,393 autopsies. Of the 44 cases the disease was unilateral in 4 and bilateral in 40. In his series there was only 1 patient between 4 months and 25 years of age, and in that patient the disease was unilateral. In 1949 Oppenheimer and Narins[3] reported on a case of unilateral cystic disease in a man 52 years of age. Upon reviewing the literature they stated that the incidence was as follows: 2 cases of unilateral disease in 88 cases of polycystic disease encountered at autopsy; 2 cases of unilateral disease and 14 cases of bilateral disease in 10,177 autopsies; 4 cases of unilateral disease and 11 cases of bilateral disease in 4,903 autopsies in infants; 11 cases of unilateral disease and 64 cases of bilateral disease in 32,360 autopsies; and a variation of unilateral to bilateral disease in from 4 to 18 per cent.

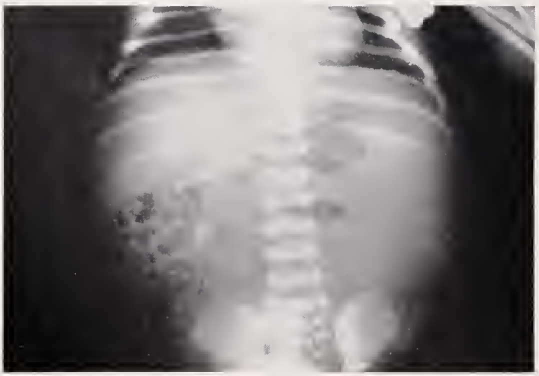

FIG. 1. Excretory urogram, showing excellent right renal excretory function with normal visualization of pyelocaliceal system and urethra and nonvisualization of the left renal pyelocaliceal system and ureters with large mass in its approximate site, showing displacement of the descending colon to the right. The mass is approximately 14 cm. in length and extends just to the midline.

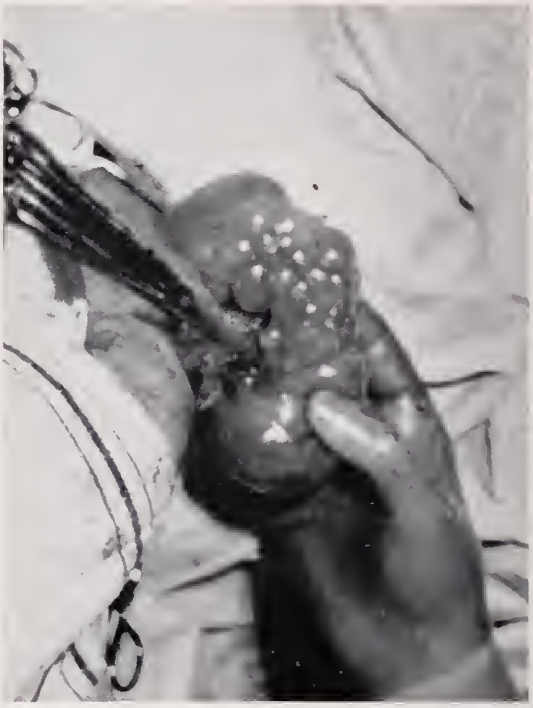

FIG. 2. Kidney delivered from wound with clamps on pedicle.

In 1949 Howze and Hill[4] reported 2 cases of unilateral multiple cysts of kidney, 1 in a 14-month-old infant and the other in a 13-year-old boy.

REPORT OF CASE

The patient is a colored male infant, born on July 3, 1954, at 10:40 p.m. in the Prince Georges General Hospital, Cheverly, Maryland. The delivery was spontaneous. The baby weighed 7 pounds, 14 ounces and was 18 inches in length. The family history was noncontributory.

On physical examination a fairly firm, slightly movable mass was noted extending from the left costovertebral angle to the umbilicus, and from the xiphoid cartilage to a point 2 cm. below the left anterior-superior iliac spine. There were no other abnormalities. The red blood cells numbered 4,540,000 with a hemoglobin of 98.5 per cent, and the white blood cells numbered 9,550 with a normal differential. The urine was normal, and the nonprotein nitrogen 10 mg.

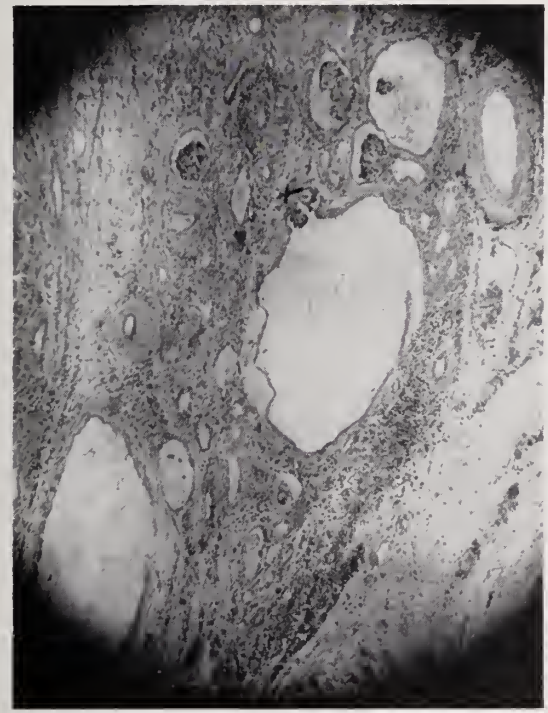

FIG. 3. Note glomerulus projecting into the cyst

On July 9 urologic consultation was requested, and an intramuscular pyelogram was obtained with a mixture of 10 c.c. of hyaluronidase and 10 c.c. of 20 per cent skiodan (figure 1).

Our impression was that this was either a cystic or a hydronephrotic left kidney. On July 10, 1954 a left flank incision was made under ether anesthesia and the left kidney was removed with ease (figure 2). Convalescence was uneventful. The infant was discharged on the eleventh postoperative day.

The specimen consisted of a polycystic kidney measuring 13 by 7.5 by 6.5 cm. and weighed 480 Gm. The outer surface was studded with numerous semi-translucent cysts which were fused. No kidney substance was recognizable as such. On cut section it was multiloculated and all of the cysts were filled with clear, watery fluid. The size of the cysts varied from 2 mm. to 4 cm.

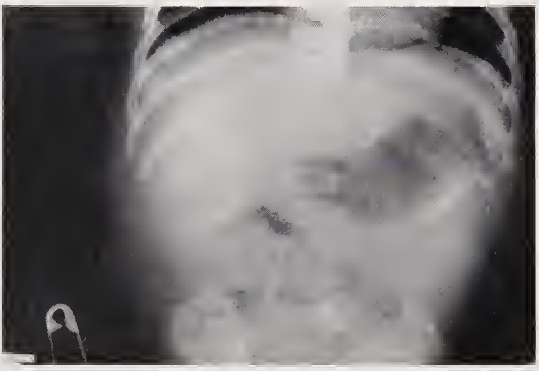

FIG. 4. Postoperative excretory urogram disclosing excellent right renal excretory function. No definite characteristic appearance of polycystic disease was noted, except for one suggestive finding, i.e., arcuate indentation of the lower renal pelvis and inferior calyx.

Examination of multiple sections taken through this kidney revealed numerous cysts which varied greatly in size. Most of these cysts were lined with cuboidal epithelium, but a few were lined with tall columnar epithelium, and still others were of the more dilated variety with flattened epithelium. Other cysts had no apparent epithelium. Occasionally a glomerulus was noted projecting into one of the cysts. In the rather fibrotic stroma there were a few glomeruli (figure 3). These were of the typical fetal type. A few tubules were seen, and most of these were of average size, as were the blood vessels.

At the age of 5 months the baby weighed 15 lbs. 6 oz. and was in good health. The blood count and urine were normal. The nonprotein nitrogen was 10 mg. Intravenous pyelography was performed (figure 4).

In the differential diagnosis in this case a congenital Wilms's tumor had been suggested. Generally, there is usually secretion and excretion of the radiopaque material in this condition, except possibly in the later stages of the disease. A transperitoneal rather than a flank incision would have been used had this been our clinical impression. Although the radiologist reports a suggestion of cystic disease of the right

(*Continued on page 386*)

THE SYPHILITIC BRAIN AND HUMAN DESTINIES

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STRANGE are the ways of the human brain. It is wholly unpredictable in its actions and behavior. It does not necessarily work at its best in a smooth and calm milieu. The irritated brain, the bruised brain, the diseased brain, may flare up into a frenzy of creative thought of far-reaching effects.

A significant stream of history has been borne along on syphilitic brains. The destinies of England, Russia, Germany, and France at the beginnings of their ascent to greatness as nations were in the hands of syphilitic brains. Although these were disease-tainted brains, they were also brains that had the germ of greatness in them. They all left a profound mark on world history.

The fortunes of England during the reigns of Henry VIII and his offspring, Edward VI, Mary and Elizabeth, were for many years in the hands of disease-tainted rulers. Henry himself acquired syphilis; his son and two daughters inherited it from him. Concerning Henry VIII there is ample evidence that he was luetic. The definite degenerative changes, mental, moral and physical, which set in in his early middle age, his bloated face, his constantly wet and running sores which would not heal, and his death in a stupor at the early age of 55, are all significant indications that Henry VIII was heavily tainted with the luetic toxins. Henry's bloodthirsty way of getting rid of the women he tired of and his equally cruel ways of dealing with his ministers and advisers were promptings of a syphilis-ravaged brain. He contracted the disease at the age of 14 or 15, long before he married his first wife. The many miscarriages of his 6 wives, the puny children they bore him, and their own poor health (they were infected by him) are still further evidence that Henry harbored a loathsome disease.

The general atmosphere of lust, obscenity, grandiose ideas and violence combined with cowardice is very typical of syphilis. All his dreadful actions had their origin in his disease-maddened brain; he was the embodiment of loathsomeness. Yet Henry VIII was responsible for some very important changes in English history. He it was who established the Church of England, promoted commerce, acted as a patron to men of science, and encouraged those in literature and the arts. It is true that many men who came in too close contact with Henry lost their lives because of his luetic obsessions, yet it was this mad monarch who started England on her way to greatness.

Henry VIII's immediate successor, Edward VI, was thoroughly tainted with syphilis, a heritage from his father. He had always been frail and sickly, and his life was mercifully short. Similarly, his sister, Bloody Mary, was a congenital luetic. All her bloody actions, mostly in the name of religion, were conceived in her disease-troubled brain. She went through life in a trail of blood and suffering. Not only on her brain had syphilis left its mark, but her body also bore its signs. She was shortsighted because of this loathsome disease; her face was wizened; and the constant pain she endured in her bones were all manifestations of the same devitalizing ailment.

Henry's more brilliant daughter, Elizabeth, also inherited his disease, but in spite of it she became one of England's great queens. She was cruel, vindictive and merciless, but she was also a great personality. It was during her long reign that England began to rise to greatness. Hers was the golden age in English literature, exploration, military exploits, and commercial expansion.

The syphilitic brain is not necessarily a dull one, although it may be a diseased one. In fact, it most often is a dazzlingly brilliant one. Henry VIII was not a stupid man. He was quite learned and intellectual. So was his daughter Elizabeth. She knew several languages and did quite a good job of translating Boethius' *De Consolatione Philosophiae.* She knew music and was well acquainted with the literature of her time. It was during her reign that Shakespeare, Jonson and other immortals in literature flourished. She knew them and encouraged them.

Elizabeth was a woman of violent loves and hates. She caused the death of many of her closest friends and advisers for trivial reasons. But her interests were always for England. Elizabeth countenanced and abetted explorers, privateers, smugglers and slave traders in extending her country's maritime power at the expense of Spain. Her reign was notable for laws regulating apprenticeship, prescribing the terms of employment of laborers and other far-reaching social legislation. Under the reign of the Tudors significant changes had taken place in commerce, industry, justice, finance, religion, and the arts.

Elizabeth's private life was a strange one, dominated for the most part by a sick brain. She had many strange episodes, and her very person was clothed in mystery. But she was always faithful to her public trust. Her disease-scarred brain ruled England through its most trying years, years that saw England in its ascendency to a place among the world's great nations.

During the time that the luetic-tainted Tudors were ruling England, Ivan IV, the first Czar of Russia of the dynasty of Rurik, also terribly tainted with syphilis, was ruling Russia. Ivan IV, better known to history as Ivan the Terrible, whose terribleness had its origin in his disease-maddened brain, was by far the cruelest of the rulers of those times. Most of his life Ivan had a cruel streak in him. His fertile brain began to devise new tortures for his enemies, and quite often for his friends. In his early days he used to watch his huge dogs with delight as they fell upon his prisoners whom he had thrown to them.

Syphilis of the brain is a very peculiar condition. Besides causing general paralysis in the later stages in some instances, the disease quite often affects the cerebral arterial system with subsequent degenerative changes in the brain tissue. If the frontal lobes are involved, intellectual degeneration may take place. Mental irritability is quite common. These symptoms may begin quite early in the disease and may last for many years until the patient's death. The story of Ivan the Terrible is the story of a man with an oriental brain, maddened by syphilis, abandoning himself to the most ruthless cruelty. He killed his oldest son (like himself heavily tainted with syphilis) for a fancied insult to his wife.

Though Ivan the Terrible's reign was severe, he did much to ameliorate the lot of the poor and to destroy the might of the boyars (nobility). In his time the army was reformed and a new code of laws was given to the nation. Archangel was founded; trade with England was begun through the White Sea; Siberia was conquered, and Kazan and Astrakhan were added to the Russian Empire. The greatness of Russia was a vision in Ivan's mind, a vision which Peter the Great transformed into a reality.

Ivan was a curiously perplexing mixture of courage and cowardice. A religious ascetic, he was an implicit believer who lived with God. Like many luetic lunatics he imagined himself to be God's Anointed. His memory was good, remarkably good, and he knew his Bible well. His conversation could be witty and sparkling, yet when left to his own company he sank into oppressive melancholy.

It is a curious thing that the great nations of Europe made their start to greatness under syphilitic brains. Germany, under the strange rule of Frederick the Great, also made its start toward power. And Frederick the Great also had a syphilitic brain. His entire life was one succession of queer incidents. According to one of his biographers, Norwood Young: "In later years Frederick gave up shaving and merely clipped the end of his beard with scissors. He seldom washed any part of his person, even his face and hands. One of his valets concluded from his master's dislike of water that he must be afflicted with a kind of hydrophobia. His complexion was tanned—doubtless because it was seldom washed. It was touched up with red paint. His eyes were prominent and blue-gray."

Frederick could speak three languages, was interested in music and the sciences, and loved the company of great men. But he was more interested in the arts of slaughter and conquest. It was during his reign that the Seven Years' War was fought and in it he won his reputation as a military genius. It was he who started Germany on the way to conquest and expansion, which under another sick brain reached the heights of folly and decline.

The military victories of Frederick the Great enlarged his empire considerably. He made the first partition of Poland. He was the first to apply scientific methods for the government of his people. Frederick set about laboriously to make Prussia the best governed state in Europe. He carefully watched the judges to see that they did not take bribes. He commissioned jurists to compile laws and to make them so simple and clear that no one would violate them through ignorance. He abolished the old practice of torturing suspected criminals to make them confess their guilt. Frederick founded elementary schools in order to abolish illiteracy. He considered the promotion of material progress a prime requisite for national greatness. He invited thrifty farmers to move in from other countries and settle in Prussia. He encouraged manufacturing and built canals. Marshes were drained and transformed into rich pasture lands. Under his rule Germany began to rise to greatness.

It was another syphilitic brain that started France on her way to becoming a world power, the brain of the Sun King—the Grand Monarch, Louis XIV. He was only 17 when he developed syphilis. He was treated by Dr. Villot with mercury, constant purgation, and frequent baths. However, this treatment was not completely successful. In time the disease became chronic. It settled in his bones, his heart, and his brain.

The personal life of the Sun King was one of utter misery. He was not happy with his wife; he went from one mistress to another. He was frail in health; in monotonous succession he suffered from smallpox, measles and other infectious diseases. Syphilis had so undermined his bones that when his dentist attempted to extract a tooth he broke the monarch's jaw. Louis was thoroughly rotten physically and spiritually. Yet under his tainted brain France enjoyed one of her greatest periods in history.

Louis worked hard and conscientiously. Under his reign France rose to a position of a first-class world power. French became the language of fashion as well as of diplomacy. During his time French manners, dress, art, literature, and science were adopted as models in all countries of the world. Under him flourished some of the greatest names in French literature: Corneille and Molière, who elevated French drama to its greatest height; Racine and Madame de Sévigné, who enriched French literature; and de La Fontaine, the maker of delightful fables.

It was during the reign of the Grand Monarch that French industry and commerce expanded considerably. French naval power rose to among the first in the world. The boundaries of France were extended in all directions, one boundary reaching almost to the Rhine. France was now firmly established as one of the world's great powers.

The syphilitic infection that had become deeply imbedded in his brain made Louis exceedingly vain. He had ideas of grandeur, typical symptoms of the luetic brain. He was the greatest monarch in all the world. His vanity had to be appeased by expensive entertainment and show. He built the greatest of all palaces at

Versailles. He had the greatest noblemen in France as servants, as *valets de chambre*, as masters of the royal wardrobe. Only a nobleman of the most exalted rank was fit to comb the royal hair or dry him off after a bath.

The unfortunate thing about ideas of grandeur that spring so readily from syphilitic brains is that those in high places are able to put them into execution. All would be well if only the benevolent nature of the men behind the ideas guided them along proper channels. However, quite often the syphilitic infection brings out the worst in a man.

The history of the world has been deeply influenced by syphilitic brains. It would require a volume merely to mention each briefly. In closing this discussion it is of interest to examine a recent, unlamented ruler who had a luetic brain and to evaluate his impact on his country and our times. That brain was Mussolini's. Benito Mussolini acquired syphilis in his youth, and he had many months of intimate acquaintance with hypodermic syringes and 606. The fact that a man may have been treated with salvarsan and neosalvarsan in the early days of his infection with syphilis is not always a guarantee that his nervous system will be immune to the ravages of the luetic invader. That seems to have been Mussolini's case.

Mussolini from the early days of his rule had ideas of grandeur. He made a bust of Caesar, but for the face of the great Caesar he substituted that of the greater Mussolini. Not long thereafter Benito posed for a photograph in which he appeared in an imitation of Napoleon's uniform, with the Napoleonic gesture of his left hand in his breast pocket.

The luetic brain of Mussolini was full of grandiose ideas. He began to play with a lion to show Italians that he was fearless, but no one suspected that the lion's teeth and claws had been extracted. Two inches were added to his height by the usual subterfuge of high heels and padded soles. Mussolini liked to stroll about in grandiose uniforms. One day he was dressed in the uniform of a leader of the Cossacks, the next as a drum major. The following day he was a grand vizier. He donned high-plumed hats and brass buttons and dazzling colors.

Typical of one with a syphilitic brain, Mussolini considered himself the maker of modern Italy. It was Mussolini who defied the whole world with truculent words and gestures. It was Mussolini who conquered vast Ethiopia and made his King an Emperor. It was Mussolini who stood on balconies and jutted out his jaw and roared that he was not afraid of anything or anybody.

Of course, the present disaster of Italy is due to the mischief wrought by a luetic brain. Mussolini's brain was full of grand ideas, but he was confused in his thinking. One of the characteristics of the luetic brain is that it is given to compulsive thinking. Mussolini cherished his thoughts as if they were himself. The two were identical and sacred. He was resistive to criticism and reason. He would not listen to his military staff, for he believed himself to be the greatest military mind in Italy. His soldiers were sent out to fight and conquer, not to give advice.

Mussolini was primarily self-centered and self-seeking. His leadership was autocratic and not coöperative (a characteristic of the syphilitic brain in high places). His leadership (he firmly believed) was more important than any cause.

The critical faculty is involved in compulsive thinking. Underlying the whole process is a fear of emotional reality. Mussolini could not face reality when it conflicted with his preconceived notions. He had, for this reason, sent thousands of young Italians to their death.

The destinies of mankind have at various times been in the hands of the possessors of luetic brains. The main characteristics of the tainted brain in high places are cruelty, vanity and grandeur. The ordinary syphilitic lunatic in a mental hospital is merely a harmless psychotic, but when he becomes the head of a state things begin to hum. The nation may either rise to greatness or plunge into the depths of disaster.

President's Page

OUR TEAM

At a recent meeting a member of the Society's Executive Board was heard to say, "I never realized the extent and variety of matters dealt with by the Board until I became a member." Those are my sentiments, too. My only regret is that every member does not have similar opportunity to obtain a bird's-eye view of our organization's activities. It would give him an entirely different conception of the Society and its value to the membership.

Fortunately, there is a sizable group that in a more limited way have that opportunity. I have in mind the members of the various committees. They constitute the team on whom the Society must rely for a successful year. Judging by past performances, they will give a good account of themselves.

A gratifying number of members volunteered for committee work this year. As many as possible have been appointed. Unfortunately, not all could be given assignments. To the latter, I wish to express my gratitude and the assurance that if the opportunity offers they will be called upon to serve.

The roster of this team appears on pages 387–90. As I have said, they are the ones who will "carry the ball" in 1955–56. I am confident that they will perform their duties conscientiously and efficiently.

W. Ross Marris

CAT.

WILLIAM ROSS MORRIS, M.D., F.A.C.S.

President, The Medical Society of the District of Columbia, 1955–1956

Editorials

WILLIAM ROSS MORRIS, M.D., F.A.C.S.

Dr. William Ross Morris, 89th President of the Medical Society of the District of Columbia, is uniquely equipped for his new post. Long recognized as one of Washington's leading surgeons, he began his medical career as a general practitioner in a coal mining community in West Virginia. He says now that this was "a wonderful experience which I think would be beneficial to every physician who plans to enter a specialty. It will give him an insight into the problems which he will face that no amount of institutional training will." Dr. Morris says, however, that his eight years in general practice was too long, considering the plans he had in mind. Three years, he now believes, is the ideal length of time to acquire the background which a physician should have before undertaking training in a specialized field.

Born in Albemarle County, Virginia, on October 4, 1897, Dr. Morris is the son of the late James Benjamin and Lucy Sledd Wingfield Morris. As a child he was tutored privately, later attending McGuire's University School at Richmond, Virginia. There followed two years at the University of Virginia, after which he matriculated in the University's Medical School, graduating in 1921.

He served a brief internship at the Walter Reed General Hospital, thereafter entering general practice in West Virginia. In 1929 he accepted a residency in surgery at the University of Michigan, the next year becoming a full-time instructor in surgery at the same institution. He continued in this post for three years, returning to Washington in January 1934 to begin the practice of general surgery, in which he has been engaged ever since.

Dr. Morris is a senior attending surgeon at Garfield Memorial Hospital, an Associate in Surgery at George Washington University School of Medicine, and attending surgeon at Doctors and George Washington University Hospitals.

Among the organizations of which he is a member are the American College of Chest Physicians (Associate), American Cancer Society, American College of Surgeons (Fellow), American Medical Association, American Trudeau Society, Frederick A. Coller Surgical Society, The Southeastern Surgical Congress, Southern Medical Association, and the Pan American Medical Society; also, the Hippocrates-Galen Society (past president), George M. Kober Medical Society, Washington Academy of Surgery (past president), and Washington Medical and Surgical Society.

Other organizations of which he is a member are the Kiwanis Club; Washington Board of Trade; Washington Chapter, University of Virginia Alumni Association (past president); Delta Chi and Nu Sigma Nu fraternities; and the Columbia Country Club. He has for a long time been very active in his church, the Metropolitan Memorial Methodist Church of Washington.

Dr. Morris married Helen Virginia Spencer of Covel, West Virginia, in 1927. They have two children: William Ross Morris, Jr., a June graduate of the University of Virginia, who is entering the Air Force to become a pilot; a daughter, Susan Gay Morris, 14, who is a student at Mt. Vernon Seminary.

Perhaps Dr. Morris' outstanding characteristic is his complete honesty in all matters, large or small. Personally, he is inclined to be

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

earnest, self-effacing, but forthright. However, his friends would smile at the suggestion that he is too serious-minded, for as a companion he is comfortable, wholesome and pleasant.

When asked if he has any hobbies, he responds with a qualified 'yes.' He likes to garden and to fish, but he doesn't do too much of either. He also enjoys traveling, and plans, if his work will permit—and this always comes first—to take more trips like his European tour last summer.

One of these days, he promises himself, "I'm going to let up and have a good time." There is, however, a doubtful note in his voice when he says it. One suspects that he is not certain he wants it that way.

What can the membership expect from Dr. Morris? It can look for honest, efficient, and forward-looking leadership. There is nothing visionary about him. He views problems presented to him logically and in the light of what he has learned in the hard school of experience. The Society will not stray far from a sound but realistic approach to its problems and opportunities in 1955–56.

WHAT IS THE SOCIETY'S PROGRAM?

The answer to this question is not as simple as one might think. Members usually think of a Society's program in terms of talks, panel discussions and conferences to which all members are invited. The fact is that, broadly speaking, our organization sponsors three programs of quite a different nature.

What are these categories, and what are some of the plans for the future?

Scientific Program. It is hardly necessary to more than mention this category except to state that the Society is unusually fortunate in having as Chairman of the Program Committee for the coming year, Dr. Ralph M. Caulk. Dr. Caulk is undoubtedly one of the most experienced and successful program planners the Society has. Contemplated by him and his committee are monthly meetings of quite different nature than have been sponsored before. Details will be announced shortly.

Aside from the monthly programs, there will be the Midwinter Seminar, to be held sometime in February 1956. Dr. Caulk has made Dr. Theodore Winship responsible for the Seminar program. Finally, the 25th ANNUAL SCIENTIFIC ASSEMBLY will be held this year under the direction of a Committee on Arrangements headed by Dr. Alfred A. J. Den, whose capabilities as an organizer are widely known among Washington doctors.

Community Program. This embraces the activities of several committees of the Society. For example, the Committee on Public Health has been and will continue to be very active in the plans for the distribution and administration of the Salk vaccine. It will aid in developing health programs for the community in coöperation with the Health Department. Some of these have been announced; others will be as the year progresses.

The Committee on Public Information will have an active part in the conduct of the Health Fair, which will be held sometime in the spring of 1956. This will be one of the most ambitious educational projects undertaken by the Society and the coöperating organizations. This committee is also responsible for the Speakers Bureau. Special efforts will be made this year to expand the facilities of the Bureau in order to meet the ever-increasing demand for physicians to speak before community groups and to participate in radio and TV programs.

The Society's 24-hour Telephone Answering Service has for many years been recognized as an integral unit in the community's medical service program. The Medical Bureau Committee will continue to inform the people of the

Washington Metropolitan Area of the public services available through the Bureau, particularly its emergency call and referral program.

The Committees on Medical Care, Public Policy and Grievance will also take part in an educational program. Their activities will be publicized much more among the public and the profession than in the past.

General Medical Affairs Program. In this category are the activities of the Committees on Professional Liability Insurance and Medical Care. The former is negotiating for a group professional liability insurance contract with one of the large insurance companies. The latter is to make surveys of problems confronting doctors which will enlighten them in regard to their relations with their patients.

Space does not permit further elaboration. It must be obvious that many of the activities of our committees impinge on each other. Nevertheless, there is a sharp delineation between their public and professional programs.

Obviously, it is not possible to foresee all contingencies which may arise, but this is what is anticipated at the beginning of the organization year.

LEGAL ASSISTANCE FOR DRUG ADDICTS

Every now and then the medical practitioner comes in contact with a narcotic addict or his family. Invariably he wonders how to treat and how to advise. Congress has recently given a partial answer to this question. A 1953 Act[1] provides for a civil proceeding whereby an addict within the District of Columbia can be sent to a hospital for treatment and kept there at Government expense until cured. The best facilities for such treatment at the present time are provided by the Public Health Hospital at Lexington, Kentucky.

A practitioner who is asked to treat an addict is on many horns of a difficult dilemma. The patient may be in great need of the temporary relief afforded by the administration of a narcotic. Yet if a narcotic is prescribed, has the physician violated any of the stringent narcotic laws? An addict is unpredictable and often dangerous to property and even life when his craving is frustrated. If treatment is refused, has the physician violated his duty to his fellow man? If he treats, the prognosis is extremely doubtful, and addicts have been known to steal prescription blanks and forge the physician's name in order to satisfy the inordinate craving for drugs. If he thinks there is a chance for cure, commences treatment and the treatment is unsuccessful, at what point—and in what manner—shall he cease treatment? If the addict comes in the office and acts strangely, what shall the physician do?

One of the things he can do is to explain the benefits of this Act to the narcotic addict or his family. If they request that action be taken he can then call the office of Mr. Leo Rover, the United States District Attorney for the District of Columbia, explain the circumstances, and the rest is up to Mr. Rover.

It would be well to emphasize the fact to the patient or his relatives that you would not be reporting a crime to Mr. Rover, but asking for his help in taking a civil action which would result in treatment by physicians specializing in the patient's ailment at a hospital well equipped and experienced in the treatment of such ailments.

Mr. Rover himself is well aware of the long-term benefits to society of treatment for addicts before any crime is committed. After he (or his assistant) satisfies himself that the patient is an addict, he will file a statement with the Civil Branch of the United States District Court here showing that the patient is an habitual user of drugs. The Judge appoints two physicians, one a psychiatrist, to examine the patient and report. He then may order the patient to the Public Health Hospital. He is transported there and treated at Government expense.

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[1] Public Law 76—83rd Congress, Chap. 149—1st Session H.R. 3307, approved June 24, 1953. Effective Dec. 24, 1953, T. 24, Sec. 601 et seq., D. C. Code (1951 ed.).

In the Act are many safeguards for the patient. He is entitled to his own counsel. After treatment is commenced, the head of the hospital has to give the Judge written reports at intervals of not less than six months stating why the patient has not been released. When cured, notice is given to the Judge. For two years after his release the patient reports periodically for physical examinations to determine whether or not there has been a relapse.

The Act specifically provides that the reports of the two examining physicians, the evidence resulting from the personal examination of the patient, and the evidence offered by the patient shall not be admissible against him in any other proceeding; and that the patient shall not be deemed a criminal and his commitment to the hospital shall not be deemed a conviction.

So far the Act has not provided its potential benefit to the community, because too few of the many addicts in the District have taken advantage of its assistance. This is believed to be because of unfounded fears that it is a criminal rather than a civil proceeding. Anyone who helps in spreading the good word will have done his good deed for that day, not only for the community but for the family and the addict.

Daniel Partridge III
Member, Committee on Relations with the Medical Society, D. C. Bar Association

CAN THE HIGH COST OF DRUGS BE REDUCED?

Chemical and pharmaceutical research in the past few years has produced a number of very valuable drugs which have materially augmented the armamentarium of the physician. Many of these new remedies have unpleasant and occasionally dangerous side-effects. The criticism of a number of physicians is that the manufacturer does not sufficiently stress such effects in the literature or in the information given by the detail man. Not satisfied with having produced a good drug, the maker attempts by additives or synergistic agents to overcome side-effects or to widen the range of usefulness. Many times such additives are not needed or desired. As a result, the physician's latitude is limited in his effort to secure a specifically desired result. Most physicians think that they are capable of using additional drugs, if necessary, in dosages suitable for the patient under treatment.

Another criticism frequently voiced in informal seminars in hospital corridors is the high cost to the patient of most of the new drugs. Doctors say that they greatly dislike apologizing to their patients for the price that must be paid for their medicine. They feel that the expenditure involved in the enormous country-wide distribution of samples is an important factor in the determination of the price to the consumer. Another item in the expense column which, as far as its practical value is concerned, could be reduced is the tremendous cost of printing and distributing cards, folders, and bulletins. These are printed in color on expensive paper and are too bulky to be retained.

Another problem in regard to new drugs is posed to the retail druggist and to the pharmacies maintained by hospitals. It is the necessity for stocking an unnecessarily wide variety of similar drugs with different trade names. It is an all too frequent occurrence, following the visit of a persuasive detail man, for a doctor to prescribe a new preparation and then never use it again. The druggist has opened a stock package and too often never has another call for its use. Following the lead of Bellevue, many hospitals are planning a standardization of proprietary remedies, particularly vitamins, in an effort to lower overhead expense and bring about ultimate reduction in cost to the patient in the ever-increasing expense of hospitalization.

Of course, the object of the manufacturer of pharmaceuticals in a highly competitive field is to call his products to the attention of the medical profession. On the other hand, it is the desire of the doctors to secure for their patients the utmost in service and relief at the minimum of expense. The retail druggist is frequently blamed for the high prices, but he is seldom the culprit. The slow turnover in sales, plus the danger of total loss from obsolescence, necessitates a mark-up of from 33 to 40 per cent to enable him to enter a profit on his books. It would seem that a coöperative sales promotion plan, perhaps not more ethical but at least less objectionable than the present system, could operate to the advantage of all parties concerned.

The greatest amount of criticism regarding samples is directed against those sent by mail. They are not in sufficient quantity to be of any use and are promptly thrown away. Many of these samples are attractively colored and constitute a potential danger to children. Many of the samples contain barbiturates, and the police state that often they find their way into the hands of addicts. Six pills, each containing ¼ grain of barbiturate, plus a bottle of cheap *vino*, and the police have a crazed customer to handle. A number of physicians have advocated that drug samples be sent through the mail only on request and in sufficient amount to be properly evaluated by trial.

Time spent with the detail man is another topic which often provokes discussion. In all fairness, these men are, as a whole, a group of most personable young men, courteous and well trained to discuss the sponsor's products. They are very patient in waiting for an opportunity to see the doctor and to answer his questions intelligently. If unable to do so, they are most prompt in obtaining information from qualified scientists in the employ of their companies.

The consensus regarding the detail man seems to be most aptly summed up in the words of a prominent surgeon. He said recently, "I see them all and sometimes I pick up something good. If I learn something of value only two or three times a year, I feel that my time has been well spent. In my opinion they are a necessary part of modern medical practice."

R. L. S.

CLINICAL NOTE

THE MULTIDOSE SUPPOSITORY

S. N. Albert, M.D.
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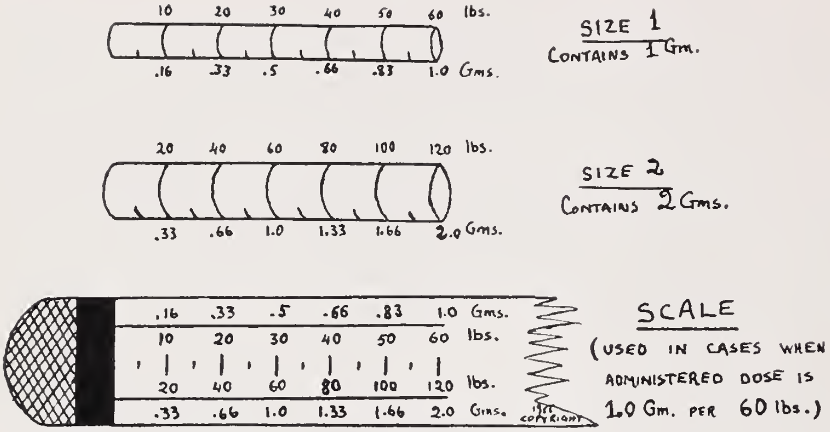
The administration of drugs by the rectal route has been used for a long time. Most medicated suppositories today on the market are dispensed in several different dosages. The physician prescribes the suppository closest to the specific dose desired for each patient.

Sodium thiobarbiturates, sodium pentothal and sodium surital are rapid-acting hypnotics, ideal for quick induction of sleep. The present method of rectal administration of sodium thiobarbiturates is tedious. The patient has to be properly prepared with a cleansing enema, the solution is made up to contain the required quantity of drug one wishes to give a patient and then instilled into the rectal pouch. Quite often it is expelled without producing the desired effect.

A multidose suppository was manufactured. A given length is set to contain 1 or 2 grams of sodium thiobarbiturates (figure 1). The suppository is measured and subdivided so that each division or segment will contain a definite quantity of drug which is equivalent proportionately to a quantity desired for each pound of body weight.

For example, for basal hypnosis we adopted a scale of 1 Gm. sodium pentothal and sodium surital per 60 pounds of body weight; the suppositories were made up in such a proportion that each 1 cm. is


10 20 30 40 50 60 lbs.
.16 .33 .5 .66 .83 1.0 Gms.
SIZE 1
CONTAINS 1 Gm.
20 40 60 80 100 120 lbs.
.33 .66 1.0 1.33 1.66 2.0 Gms.
SIZE 2
CONTAINS 2 Gms.
.16 .33 .5 .66 .83 1.0 Gms.
10 20 30 40 50 60 lbs.
20 40 60 80 100 120 lbs.
.33 .66 1.0 1.33 1.66 2.0 Gms.
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SCALE
(USED IN CASES WHEN ADMINISTERED DOSE IS 1.0 Gm. PER 60 lbs.)

FIG. 1. Two different sizes of suppositories with a scale measure to determine the dose for each patient.

equivalent to the dose for 10 pounds of body weight. Thus, a child weighing 45 pounds would receive 4.5 cm. of a 1 Gm. sodium thiobarbiturate suppository 6 cm. long. No cleansing enema is required.

The suppositories are made up in quantity and are kept in a tightly sealed container in a refrigerator.

Once the suppository is administered, the patient is asleep within 5 to 10 minutes.

This principle of multidose suppository can be made use of in general practice when drugs are to be administered rectally. Different dose quantities can be incorporated into a one-size suppository, and physicians can easily vary doses to the needs of patients by using the precalculated segments.

HOUSE OFFICERS' MEDICAL ESSAY CONTEST

Sponsored by The Medical Society of the District of Columbia

The Medical Society of the District of Columbia invites all residents and interns of hospitals in the District of Columbia to compete in a Medical Essay Contest under the auspices of the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA, the official publication of the Society.

Essays on original research projects (basic or clinical), review articles, or historical treatises of medical subjects may be entered in the Contest.

Prizes totaling $150.00 ($100.00, first award; $50.00, second award) will be given for the best articles submitted in any one year unless in the opinion of the Editorial Board no essays of sufficient merit are submitted to justify an award. Honorable mention may be given other essays. All essays submitted and accepted for publication will become the sole property of the MEDICAL ANNALS.

Essays must be not less than 6 nor more than 20 double-spaced, typewritten, letter-size pages in length and must be submitted not later than March 1, 1956 to

The Editor
Medical Annals of the District of Columbia
1718 M Street, N. W.
Washington 6, D. C.

Further details may be obtained by writing to the Editor. The Editor reserves the right to edit accepted essays as he deems proper.

ANNUAL REPORT OF THE PHYSICIANS' SERVICES COMMITTEE OF MEDICAL SERVICE*

The Physicians' Services Committee of Medical Service was established in 1948, the same year that the Medical Service Plan was instituted. The function of this Committee is to protect the interests of the subscribers and the physicians. It reviews and approves payments of bills, other than those of a routine nature, submitted by physicians for services rendered to subscribers. It reviews and adjudicates complaints involving patients and physicians. In executing its duties it has at all times been cognizant of the limitation of funds available. In other words, the Committee has ever been aware of its responsibility in awarding fees to protect and preserve the financial security of the organization. The Medical Service Plan is operated and controlled by the Participating doctors and it is the opinion of the Physicians' Services Committee that no plan in the world offers so much medical service at such little cost to the subscriber.

The membership of the Physicians' Services Committee has consisted of 2 doctors from General Surgery, and 1 member each from General Medicine, Obstetrics and Gynecology, Urology, Orthopedic Surgery, Plastic Surgery, Neurosurgery, Ophthalmology, and Clinical Pathology. Each regular member had an alternate. In addition to these 10 appointed members there were always present Dr. A. Clagett Gray, the Medical Adviser to the Plan, Mr. George McGovern, who is the Manager of Medical Service, and Mr. A. B. Carpenter, who is in charge of the Claims Department.

The membership of this Committee has been enlarged from time to time to meet the demands of changing conditions. During the past year a member was added to represent the specialty of Clinical Pathology. The presence of this member on the Committee was deemed mandatory to assist in determining just what laboratory and X-ray work had been required by the surgical problem of the patient. It was thought that many of the tests submitted for compensation had not been required to make a surgical diagnosis or to render intelligent surgical therapy. Furthermore, in many instances it appeared that laboratory and X-ray studies had been repeated more often than would have normally been required to treat surgically the patient under consideration. This problem of laboratory fees represents a large one, and I believe that there may be great need in the future to place a limit on the maximum allowance of fees for laboratory work permitted by Medical Service on surgical patients. Either such a policy must be adopted or else there must continue the painstaking and laborious task of searching the record of each patient for whom there has been presented a large laboratory bill to attempt to designate just which laboratory studies had been required to conduct intelligent surgical therapy and which ones had been related to medical treatment or research.

The Physicians' Services Committee has from time to time invited participating doctors to attend meetings to attempt to indoctrinate them with the existing problems. Sometimes surgeons, new to practice here in Washington, have not understood the reason for the relatively small fees allowed for surgical procedures. In some instances they had not previously been informed that Medical Service was created primarily for the low-income group. They had often thought of Medical Service as being an insurance company with huge financial reserve. At these meetings such physicians were advised that many of the subscribers would otherwise be treated as staff cases if Medical Service did not exist. Furthermore, it was explained to them that the aggregate sum of these smaller fees amounted to much more money to each surgeon than he would have received had no such plan existed. Also, as we know, the dignity of the low-income group of patients has frequently been preserved.

At the last meeting, on April 18, 2 dermatologists were present who were serving as liaison officers between the Physicians' Services Committee and the Section on Dermatology. These liaison officers will assist the members of the Committee to adjudicate fees for certain dermatological procedures. An illustrative problem is presented by the following case:

> A physician submitted claims for 3 patients for whom he had removed moles and keratoses in his office by an electrosurgical technic. He had removed 162 growths from one patient, 148 growths from the second patient, and 220 from the third.

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* Presented at the Annual Meeting of Participating Physicians of Medical Service of the District of Columbia, April 26, 1955.

In view of the large number of surgical procedures involved and the expense to Medical Service if the usual allowances were awarded for the removal of these growths, it was imperative that some policy be adopted for determining the fees on a special basis. Problems like this one prompted the Board of Trustees to arrange for liaison between the Section on Dermatology and the Physicians' Services Committee. Another big problem in the specialty of dermatology is on the horizon, that of planing the face. It was learned at the last meeting that this procedure may be used to remove surgical lesions such as keloids and cysts.

The Home and Office Care Program of Medical Service is limited to certain specific procedures. One of these is the removal of a superficial tumor or cyst. A surgeon removed a tumor of the soft palate of a patient in his office and requested that it be considered a superficial tumor. He explained that the medical terminology of the word superficial had reference to the depth of cysts or tumors and not to their anatomical location. The Committee after deliberation concluded that it was proper to regard superficial tumors or cysts as those located on the external surface of the body, but recommended that for clarification the phrase be amended to read "superficial tumors and cysts; body cavities excluded."

A Participating surgeon visited one of the meetings of this Committee regarding the disallowance of fees for complications of surgical procedures. He stated that several of his patients had experienced postoperative hemorrhages following tonsillectomies. He stated that it had been necessary for him to take care of this complication without additional remuneration, whereas the anesthetist had received a fee each time that he had induced anesthesia; thus he had concluded that he, the surgeon, had not received the same consideration and had not been treated with the same justice as had the anesthetist. The Committee ruled, however, that a surgeon had not completed the surgical treatment when he had placed the last stitch, but rather he had a responsibility for postoperative care. The postoperative bleeding following a tonsillectomy in each patient had occurred during the period of postoperative care. The anesthetist on the other hand had an implied agreement to put the patient to sleep and to render the service of his specialty while the patient was asleep and immediately thereafter. Thus, for him, each time that he induced anesthesia he began a new procedure.

The Committee has ruled, however, that if the complication is characteristic of the disease that an additional fee may be allowed. For instance, if the patient has a fracture through the anatomical neck of the femur, the head of this femur may be rendered avascular. Therefore, no treatment will permit the fracture to heal. The surgeon has no way of knowing the possibility of this condition in advance. Under these circumstances he may be awarded an additional fee for a second surgical procedure. Also, in a few instances when a patient has had much surgical therapy performed at different times and has required an extended period of aftercare, the Committee has authorized payment beyond the maximum fee schedule of $250.00. It has done this without exceeding the fee schedule allowed for each individual procedure performed. The patient who has suffered with severe burns may qualify for this special consideration.

The Committee has frequently encountered the records of a patient who has had multiple procedures performed at different times by different surgeons for the same condition. This type of problem has to be handled with statesmanship and wisdom in order to permit each surgeon to collect a reasonable fee and yet to avoid the sum total of all the fees to be so large that the financial security of the Plan could be jeopardized.

The Committee has occasionally allowed a fee for anesthesia in excess of the $40.00 maximum listed in the schedule. For instance, an anesthetist gave to a patient a hibernation anesthesia for 3 hours, and then a gas-oxygen-ether anesthesia for 4½ hours for a thyroidectomy. He was awarded a fee of $50.00 instead of the usual allowance of $35.00. The establishment of fees not listed in the schedule continues to be a complicated problem. This has been especially true for the specialty of Plastic Surgery. It appears mandatory that the plastic surgeons should present to the Physicians' Services Committee a schedule of basic fees. Without such a schedule the Committee has simply been unable to deal with the complicated compensation problems for plastic procedures with equity and justice. I understand that an attempt now is being made by this section to develop and to present to the Medical Service Plan a schedule of basic fees.

Although new problems have developed it is consoling that many of the earlier problems of the Physicians' Services Committee have to a large extent disappeared, due to experience and to the establishment of policies. For instance, one of the most difficult problems did consist of determining the eligibility of a subscriber to receive benefits during the first 10 months of his participation. Although this problem still exists it has become relatively simple. The possible existence of a surgical lesion at the time that the subscriber's policy became active can almost invariably be established by the operative and pathologic reports.

The determination of fees for an operation performed by more than one surgeon did not constitute the big problem during the past year. The Committee has followed the policy of using the flat fee for the operation as listed in the schedule. If one surgeon has performed the operation, then he receives the flat fee. If 2 surgeons have performed the operation, then the same flat fee is divided equally between the two. This simple rule appears to have stimulated surgeons to discover their versatility.

The Physicians' Services Committee met 9 times during 1953-54. The length of each meeting varied from 2½ to 4 hours, but probably averaged about 3 hours. More than 260 cases were considered. The problem of establishing a fee for services rendered constituted 75 per cent of all cases. The question of eligibility of the patient constituted a problem in 25 per cent.

I had the good fortune to attend the Annual Conference of the National Blue Cross and Blue Shield, which was held in Chicago on March 20-24, 1955. I was greatly impressed by the spirit of this meeting, which was well organized. The speakers were excellent. There existed an appeal for Medical Service to have a uniform basic policy to be used throughout the country. There was much discussion regarding the desirability of developing a policy that would provide more complete medical coverage to the subscriber. Many speakers emphasized that since the doctors themselves have demonstrated that the Medical Service Plan is practicable, that several commercial and political organizations have become intensely interested in developing health insurance plans.

I would like to thank Dr. Gray, Mr. McGovern, and Mr. Carpenter for the long hours of work, perseverance, and patience with the Physicians' Services Committee. They have constituted the architectural structure for the presentation of the data. I wish also to thank the members of the Committee and their alternates for their loyalty and devotion to duty, and for their abilities to render calm and impartial decisions.

I should like also to pay special tribute to the Participating Physicians of Medical Service. They have almost unanimously supported the decisions of the Physicians' Services Committee. Physicians do indeed make up a very special group, for they have paid such a high price in money and time to attain qualifications for their profession. These years of sacrifice and pursuit of a common goal have consolidated them into a rather homogeneous group, and it is because of this experience and this idealism that the Medical Service Plan can be directed on a basis of common understanding. It merely indicates that a superior group of people do not require rigid laws or rigid government. Physicians have always demonstrated confidence in the future and great reverence for justice. Therefore, this group, so dedicated, cannot fail in its efforts to direct a Medical Service Plan so devoted to the unselfish ideal of providing maximum benefits at the lowest possible cost to the subscribers.

O. HUGH FULCHER, M.D., *Chairman*

WOMAN'S AUXILIARY NOTES

We were very proud of our Auxiliary Presidents at the recent AMA meeting in Atlantic City. Mrs. Duane C. Richtmeyer, our President, gave an interesting and witty report (we thought it was the very best one!) and she didn't get the bell either! Mrs. Lawrence A. Rapee, our incoming President, was very pretty, charming, and efficient as one of the tellers. But we were proud beyond words when Mrs. Edgar E. Quayle, one of our former Presidents, was installed as one of the national Vice Presidents! We feel the honor has long been due her and know she will represent our D. C. Society well, and be an excellent addition to the national Board.

Congratulations, Helen. We've already dusted the President's chair for you!

MRS. ALBERT E. MARLAND
Publicity Chairman

DR. MURRAY OF CALIFORNIA TO HEAD AMA IN 1956

Of the 31,057 registrants at the 104th Annual Meeting of the American Medical Association in Atlantic City, N. J., June 6–10, 11,546 were physicians. Of this number, some 360 were physicians from Washington and surrounding communities. A delegation from the Woman's Auxiliary to the District Medical Society accompanied their husbands to the meeting.

Dr. Dwight H. Murray, of Napa, California, formerly Chairman of the AMA Board of Directors, is the new President-elect of the AMA, to take office in 1956. His election was unanimous. Immediately following his election, the Board named Dr. Gunnar Gundersen as its new Chairman.

DWIGHT H. MURRAY, M.D.
President-elect of AMA, 1955–56

This year's inaugural program was held in the Atlantic City Convention Hall, June 7. Dr. Elmer Hess, of Erie, Pa., took office as President. The inaugural theme was "Medicine's Proclamation of Faith." The program, which was broadcast Nationwide over the ABC network, featured an address by Norman Vincent Peale, D.D., Pastor of the Marble Collegiate Church of New York.

The AMA's 1955 Distinguished Service Award, in the form of a gold medal, was presented in absentia to Dr. Donald G. Balfour, of Rochester, Minn., for his outstanding contributions to medicine and humanity.

Dr. Jonas E. Salk, of Pittsburgh, was recipient of the 1955 Mutual of Omaha Criss Award of $10,000 and a medal.

The Passano Foundation Award of $5,000 was bestowed on Dr. Vincent du Vigneaud, of Cornell University.

Present at the meetings of the House of Delegates from Washington were the Society's delegates to the AMA, Dr. Hugh H. Hussey and Dr. Raymond A. Holden. Also present at the sessions were Theodore Wiprud, Secretary, and Lawrence A. Zupan, Assistant Secretary, of the Society.

Dr. Hess and Dr. Walter B. Martin, retiring President, addressed the opening session of the House of Delegates on Monday, June 6. Dr. Daniel F. Lynch, President of the American Dental Association, an Associate Member of the D. C. Medical Society, was recognized by the House. Dr. Oscar B. Hunter, Jr., was cited for his substantial contribution to the American Medical Education Foundation.

Dr. Hunter was elected a member of the Executive Committee of the Conference of Presidents and Other Officers of State Medical Associations.

Mr. Wiprud was one of ten Medical Society Executives who received 25-year achievement awards at the Eighth Annual Meeting of the Medical Society Executives Conference, held at the Ritz-Carlton, June 4. At the business session of the meeting, Mr. Wiprud, Chairman of the Program Committee, was commended for the excellent program which he and his committee had developed for the Conference.

Dr. I. Phillips Frohman, Vice Chairman of the Section on Pediatrics, was elected to the office of Chairman for 1955–56.

Mrs. Edgar E. Quayle was elected Fifth Vice President of the Woman's Auxiliary to the AMA.

Appearing on the scientific program of the various sectional meetings were the following members of the D. C. Medical Society who read papers or otherwise participated.

Section on Gastroenterology and Proctology: Dr. Garnet W. Ault was moderator of a Panel on Chronic Ulcerative Colitis.

Section on Internal Medicine: Dr. Thomas McP. Brown participated in a Panel Discussion on Treatment of the Common Forms of Arthritis.

Section on Military Medicine: Dr. Frank B. Berry presented the report of the Office of the Assistant Secretary of Defense.

Section on Nervous and Mental Diseases: "The Result of Temporal Lobectomy for the Treatment of Psychomotor Epilepsy," Dr. Arthur A. Morris.

Combined Meeting of Section on Ophthalmology with the Association for Research in Ophthalmology: "Glaucoma Associated with Hypermature Cataract; Phakolytic Glaucoma —A Clinico-Pathologic Study of 142 Cases," Dr. Milton Flocks, San Francisco; Dr. Stuart C. Littwin, Teaneck, N. J.; and Dr. Lorenz E. Zimmerman, Washington, D. C.

Section on Orthopedic Surgery: "Division of the Tibial Collateral Ligament for Removal of the Medial Meniscus from the Knee Joint," Dr. Julius S. Neviaser.

Section on Pediatrics in joint meeting with Section on Preventive and Industrial Medicine and Public Health: "Public Health Implications in a Program of Vaccination Against Poliomyelitis," Dr. Leonard A. Scheele.

Section on Pediatrics: "Sickle Cell Anemia," Dr. Roland B. Scott.

Section on Radiology: "Late Follow-up Studies after the Internal Deposition of Radioactive Materials," Drs. William B. Looney and Martin Colodzin, Bethesda, Maryland.

Section on Surgery in joint meeting with the Section on Military Medicine: "Management of Injuries to the Thorax," Dr. Brian Blades.

Section on Urology: "Transcapsular Rupture of the Kidney," Dr. R. Frank Jones; "Recurrence Rate and Bilateral Aspect of Renal Calculi," Dr. Roger Baker.

Among the discussants of the scientific papers were Drs. Robert Barter, Robert Stolar, Dan C. Ogle, Francis M. Forster, Leonard T. Peterson, Roland B. Scott, and Frank W. Konzelmann.

The District Medical Society was particularly well represented in the Scientific Exhibit. Listed below are the exhibitors and the titles of their exhibits.

Section on Dermatology and Syphilology: "The Limitations of the Therapy of Acne," Dr. James Q. Gant, Jr., George Washington University School of Medicine; "Inoculation Syphilis in Human Volunteers," Drs. Sidney Olansky, John C. Cutler, Evan W. Thomas, Bernard I. Kaplan, Lopode Mello, and Harold J. Magnuson, Public Health Service, U. S. Department of Health, Education and Welfare. The latter exhibit received a Certificate of Merit.

Section on Experimental Medicine and Therapeutics: "Iron Metabolism," Dr. Charles E. Rath, Georgetown University School of Medicine, and Drs. Clement A. Finch and A. G. Motulsky, University of Washington (Seattle) School of Medicine.

Section on General Practice: "Cervical Erosion—An Effective and Simple Method of Treatment," Dr. I. Phillips Frohman; "Tension Headache," Drs. Lester S. Blumenthal and Marvin Fuchs.

Section on Internal Medicine: "Anticoagulant Therapy Controlled by a Simple Blood Prothrombin Test," Dr. Benjamin Manchester, George Washington University School of Medicine.

Section on Military Medicine: "Late Effects of Internally Deposited Radioactive Materials," Dr. William B. Looney, U.S. Naval Hospital, National Naval Medical Center.*

Section on Nervous and Mental Diseases: "Psychiatric Services in General Hospitals," Dr. Lucy D. Ozarin, Veterans Administration; "Results of Temporal Lobectomy for Psychomotor Epilepsy," Dr. Arthur A. Morris.*

Section on Obstetrics and Gynecology: "New Concepts in Diagnosis and Treatment of Toxemia of Pregnancy," Dr. Frank A. Finnerty, Jr., Georgetown University School of Medicine.

Section on Ophthalmology: "Specific Clinicopathological Types of Granulomatous Inflammation," Drs. Lorenz E. Zimmerman and John H. Bickerton, Armed Forces Institute of Pathology, and Helenor Campbell Wilder, San Francisco.*

Section on Pathology and Physiology: "Myocarditis: a Frequent Complication in Systemic Disease," Dr. William C. Manion, Armed Forces Institute of Pathology; "Blood Banks," Dr. Oscar B. Hunter, Jr., American Association of Blood Banks; "Bacterial Carcinogens," Dr. George A. Clark, Scranton, Pa., and Dr. H. H. Leffler; "Persistent Asymptomatic Single Nodule in the Neck of Adults," Dr. Gustavus H. Klinck, Armed Forces Institute of Pathology; Dr. C. T. Klopp, George Washington University Hospital; and Dr. T. Winship, Garfield Memorial Hospital.

The Section on Pathology and Physiology sponsored a Special Exhibit on Fresh Tissue Pathology. Among the demonstrators were Drs. Thomas M. Peery, Oscar B. Hunter, Jr., William D. Dolan, Jr., and Richard E. Palmer.

Section on Radiology: "Irradiation of Bladder Cancer: Supervoltage Rotation, and Point Source Intracavitary Techniques," Dr. Milton Friedman, New York University College of Medicine, and Dr. Lloyd G. Lewis, Georgetown University School of Medicine.

Section on Surgery, General and Abdominal: "Surgical Treatment of Obliterative Arterial Disease and Arterial Aneurysm," Drs. Charles A. Hufnagel and Pierre J. Rabil, Georgetown University Hospital*; "Extended Resection for Cancer: Distal Colon and Rectum," Drs. Garnet W. Ault, Robert S. Smith, and Alejandro F. Castro, the Proctology Clinic of Washington; "Fundamentals of Wound Healing," Drs. Philip A. Caulfield and Howard S. Madigan, Georgetown University School of Medicine.

Section on Urology: "Ground Substance and Renal Calcification," Dr. Roger Baker, Georgetown University School of Medicine.*

Miscellaneous Exhibits: "How the World's Most Precious Fluid, Blood, Is Refined," Dr. David N. Grant, The American National Red Cross.

A new feature of this year's Scientific Exhibit was Queries and Minor Notes, consisting of special sessions wherein doctors answered questions pertaining to their special fields. Dr. Francis M. Forster participated in the sessions devoted to Nervous and Mental Diseases, and Dr. Roger C. Baker, Jr., in those devoted to Urology.

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* This exhibit received Honorable Mention.

Physicians Wanted for Army Dispensary

Civilian physicians are wanted in the United States Army Dispensary at Fort Myer, Arlington 11, Virginia. Physicians who are interested can arrange for an interview by calling Mrs. McWhorter, Jackson 2-3000, Extension 2112 or 2119.

An Exhibit Symposium on Diabetes was arranged by Dr. Howard F. Root, Boston, with the assistance of members of the American Diabetes Association. Drs. James M. Moss and DeWitt E. DeLawter, Georgetown University School of Medicine, presented an exhibit on "Today's Great Imitator, Diabetes Mellitus." A question and answer conference was conducted in connection with the Exhibit Symposium. Dr. Moss answered questions on symptoms and diagnosis. Dr. Moss also participated, with Drs. E. P. Joslin, R. F. Bradley, and Leo P. Krall, Boston, in a Panel on Diet and Insulin in the Treatment of Diabetes and Its Complications.

A dramatic highlight of this year's program was a TV commentary of surgery and pathology which originated at Walter Reed Army Medical Center and which closed the spring TV series, "March of Medicine," sponsored by Smith, Kline & French Laboratories in coöperation with the AMA. The Armed Forces Institute of Pathology participated in the program by giving the pathologic report on the tissue sample.

The 1955 Clinical Meeting of the AMA will be held in Boston, November 29–December 2, 1955.

BOOK REVIEW

Urology, Volumes I, II and III. Edited by Meredith Campbell, M.S., M.D., F.A.C.S., Emeritus Professor of Urology, New York University. With the Collaboration of Fifty-one Contributing Authorities. Price, $60.00 per set. Pp. 2356, with 1148 figures. Philadelphia: Saunders, 1954.

These close-to-2500 pages are divided into 3 volumes, and each volume is divided into sections by 52 contributing urologists. The list of contributing authors is a Who's Who of Urology. The material covered by sections follows:

Volume I, 8 sections: anatomy and physiology; principles of diagnosis; obstructive uropathy; anomalies; infections; infertility; stones and foreign bodies.

Volume II, 4 sections: injuries; tumors; neuromuscular disease; urologic problems in infants, children and women.

Volume III, 4 sections: endocrinology in urology; surgery; radiation of tumors; medical diseases; adrenals.

The text is illustrated with over 1,100 illustrations. The sections are complete, authoritative, and highly informative. Urography, pediatric urology, injuries and tumors of the genitourinary tract, and genitourinary-tract tuberculosis are especially well handled.

As one would predict, there is some—but surprisingly little—overlap Occasionally this represents a difference in attitude toward the same problem.

This is an excellent reference work. Its chief usefulness should be found in the hands of urologists, general surgeons, internists (especially the "general medicine" variety), general practitioners, and medical students.

Robert J. Gilston, M.D.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, May 23, 1955, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Edward Adelson, Walter Reed Army Medical Center
Henry H. Balch, Jr., Washington Clinic
Robert R. Belton, 1070 30th Street, N.W.
Armon A. Cairo, Georgetown University Hospital
Dorothea Beckh Chapman, 1139 S. Edison Street, Arlington, Va.
Charles M. Crittenden, 1011 S Street, N.W.
Parker Sturgis Dorman, 1302 18th Street, N.W.
David Goldenberg, 1932 Rosemary Hills Drive, Silver Spring, Md.
Arthur H. Kiracofe, St. Elizabeths Hospital
Rudolph H. Miller II, 717 Florida Avenue, N.W.
Herbert N. Munhall, 1835 Eye Street, N.W.
George Shepard, Jr., 154 Adams Street, N.W.
Max G. Sherer, 1911 East-West Highway, Silver Spring, Md.
Bushnell Smith, 2322 41st Street, N.W.

Associate Members

Robert L. Baird, 526 Kenyon Street, N.W.
Leonard B. Berman, 1660-A Avon Place, N.W.
Henry T. Grinvalsky, 3221 Medway Street, Silver Spring, Md.
James L. Laubach, 3603 24th Street, N.E.
James M. Moser, Jr., 4601 Edgefield Road, Bethesda, Md.
Bernard H. Ostrow, 7961 Eastern Avenue, Bethesda, Md.

Resident-Intern Member

Henry S. Spencer, 3301 Plyers Mill Road, Kensington, Md.

On the Lighter Side

Ship ahoy! and Anchors aweigh! This is a tale of a seafaring man with the wind in his sails, his hand on the helm, and his eye on the horizon.

"What makes a sailboat sail?" sez I.

"Why the wind, of course!" sez he. "When you are in the wind you release the jib and then starboard tack. Then lace her down and cleat it so that the sail is off the spreader."

"Whoa there!" sez I. "If you get too technical I will be overboard before you know it."

"Well," sez he. "I was knocked overboard once by a swinging boom but saved myself by clinging to the side until I was able to be helped aboard. However, I was never capsized in all my sailing days—only filled the cockpit with sea water a time or two."

"Bring me up to date," sez I.

"We-e-l-l," he drawled. "I was only 11 or 12 years old when I fitted up an old rowboat with a sail, and I have been sailing ever since.

"My first real boat, a 21-foot Friendship sloop, I bought when I was 16. Then in 1930 I acquired *The Kit Kat*. She was a beauty—25 feet long and could skim the water like a gull. I won three or four August series with her up around Maine."

"What is an August series?" sez I.

"An August series is just what it says," sez he. "You race your boat in 8 or 9 races during July and about 12 races in August. The sloop that wins the highest number of races wins the series—you know—just like in baseball."

"I see," sez I. "Any exciting moments in any of those races?"

"A great many," says Captain Clark. "I remember when I raced *The Kit Kat* for the Heywood Davenport Cup in Northeast Harbor, Maine. That race was nip and tuck bow to bow until the very last moment, and then I eased her nose over the finish line a bare two seconds ahead of the second place boat." This race, he further explained, is a fleet race held every year.

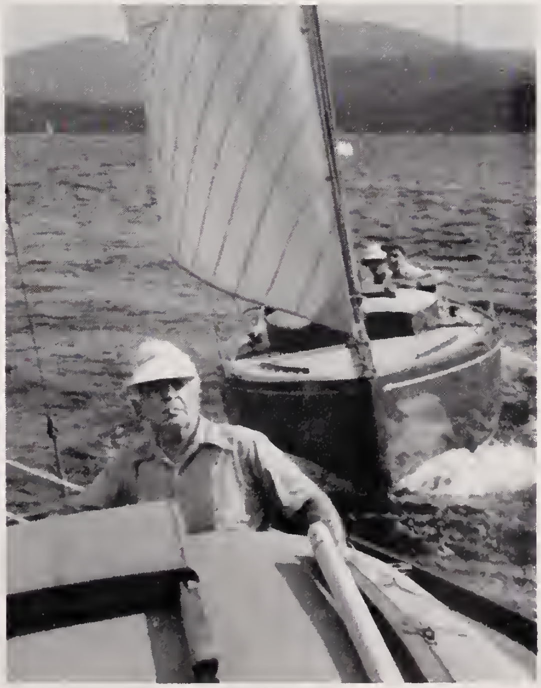
"My next boat was a 39-foot 6-inch Bar Harbor sloop, *The Scud*. This one was sailed in many a series but never won one. However, she did win some of the races, especially when the younger men were at the helm.

"In September 1948, at the Camden Regatta there was a very light wind and a head tide. The larger boats—$50,000 jobs—had to stay farther offshore, while my smaller boat could go closer to shore and get a breeze. Little by little I worked out until I led the whole fleet of about 17 yachts. I didn't maintain that lead but I was ahead long enough so that with my handicap I won the Regatta. Because my sails were filled all the day and so many of the others were not, the cup was presented to me with the salutation, 'To Private Air Clark.' I never was happier in my life than I was at that moment."

"What is your latest boat, Captain Clark?"

"My latest is *The Elaine*, named after my wife, you know. She—the boat, that is—is a 36-foot Hinckley sloop with an auxiliary motor and carries a crew of six. She has a Marconi rig, which is a mast braced with steel wires to give it more strength and greater height, and I raced her last in August of 1954 in an ocean race off the coast of Maine.

"There were 45 boats entered in this particular race, and we sailed out of Portland, Maine into the



Captain Clark at the helm of The Elaine ocean, then down the coast and back again a distance of approximately 80 miles. The race began on a Saturday and finished on Monday afternoon, and we finished sixteenth, but we thoroughly enjoyed the race."

"Do you take women along on any of these races, Captain Clark?"

"That I do, Lad. My wife is the best ship's cook a boat ever had, and she can handle the helm with the gentleness of a soft summer's breeze."

"What part of the racing do you like best of all?" sez I to Captain Clark.

"Well," sez he, "that is a difficult question to answer because I have loved sailing and sailboat races for the past 50 years, but if you pin me down I would have to say that I would much rather plan the tactics in a boat race than do anything else."

"Captain Clark, whom would you say is the best skipper a boat ever had?"

"That one is easy," sez he. "Dan Borden is the best skipper with whom I have ever sailed. That man never takes his eye off of the sail as long as he has his hand on the helm. I like to look around a little at the other boats when I am the helmsman."

"Are you planning any boat races this summer?" I asked Captain Clark.

"No," he said. "I am going abroad this summer to England and Spain, but if there is a sailing boat within seeing distance of me I'll be on it, you can be sure."

A happy voyage to you, Captain William Earl Clark, and may you have many many more sailing days ahead before you drop anchor.

J. EARL KADAN, M.D.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

New and Nonofficial Remedies Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1954. Issued under the direction and supervision of The Council on Pharmacy and Chemistry, American Medical Association. Pp. 609. Philadelphia: Lippincott, 1954.

Prolonged and Perplexing Fevers. CHESTER S. KEEFER, M.D., Physician-in-Chief and Director, Evans Memorial, Massachusetts Memorial Hospitals; Wade Professor of Medicine, Boston University School of Medicine, AND SAMUEL E. LEARD, M.D., Assistant Visiting Physician and Assistant Member, Evans Memorial, Massachusetts Memorial Hospitals; Instructor in Medicine, Boston University School of Medicine. Price, $5.50. Pp. 248. Boston: Little, 1955.

Management of Addictions. EDWARD PODOLSKY, M.D., Department of Psychiatry, Kings County Hospital, Brooklyn, New York; Editor of "Music Therapy" and "War Medicine." Price, $7.50. Pp. 413. New York: Philosophical Library, 1955.

Bickham-Callander Surgery of the Alimentary Tract, Volumes I, II and III. RICHARD T. SHACKELFORD, M.D., Assistant Professor of Surgery, Johns Hopkins University School of Medicine. Assisted by HAMMOND J. DUGAN, M.D., Assistant in Surgery, Johns Hopkins University School of Medicine. Price per set, $60.00. Pp. 2575 with 1705 illustrations. Philadelphia: Saunders, 1955.

Should the Patient Know the Truth? A response of physicians, nurses, clergymen, and lawyers. Edited by SAMUEL STANDARD, M.D., Associate Professor of Clinical Surgery, New York University College of Medicine; Attending Surgeon, Bellevue Hospital and University Hospital; Director of Surgery, Sydenham Hospital, New York, AND HELMUTH NATHAN, M.D., Assistant Professor of Surgery, Albert Einstein College of Medicine, New York; Visiting Surgeon, Bronx Municipal Medical Center, and Twenty-Three Contributors. Price, $3.00. Pp. 160. New York: Springer, 1955.

The Management of Obstetric Difficulties, 5th ed. PAUL TITUS. Revised by J. ROBERT WILLSON, M.D., M.S., Professor of Obstetrics and Gynecology, Temple University School of Medicine; Head of the Department of Obstetrics and Gynecology, Temple University Hospital; Consultant in Obstetrics and Gynecology and Chief of the First Service, the Philadelphia General Hospital, Northern Division. Price, $12.50. Pp. 737, with 348 text illustrations and 1 color plate. St. Louis: Mosby, 1955.

Ciba Foundation Symposium on Chemistry and Biology of Pteridines. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., B.CH., AND MARGARET P. CAMERON, M.A., A.B.L.S., Editors for the Ciba Foundation. Price, $8.00. Pp. 425, with 143 illustrations and diagrams. Boston: Little, 1954.

News and Personals

MEETINGS

The American Therapeutic Society held its **56th Annual Meeting** at Atlantic City, N. J., June 2-5 at the Shelburne Hotel, preceding the meeting of the AMA. At the business meeting, June 3, Dr. Oscar B. Hunter, Jr. presented his Secretary's report. At this meeting, an obituary of the Reverend Paul A. McNally, S.J., for many years Dean of Georgetown University School of Medicine, was read by Dr. Robert J. Coffey, Professor of Surgery at Georgetown.

On June 4 Dr. Hunter presented a scientific paper on "Effect of Thiotepa on Malignant Tumors" and later in the day was moderator of a Symposium on Diagnostic and Therapeutic Uses of Radioisotopes. Dr. Robert J. Fink was invited to participate in the Symposium. The title of his paper was "Use of Radioisotopes as Tracers on a Practical Level."

Several other members of the D. C. Medical Society took part in the scientific program and presented the following papers: "Lente Insulin," Dr. Maurice Protas; "Comparison of the Plasma Retention and Urinary Excretion of Dextran in the Normovolemic and in the Surgical Patient," Drs. Jacob J. Weinstein, Wlliam E. Bageant, William Liu, and Joseph H. Roe; "Chorionic Gonadotropins and the Human Corpus Luteum," Dr. Richard H. Fischer.

The First Oscar B. Hunter Memorial Award in Therapeutics was given to Dr. Jonas E. Salk.

The combined chapters of the **District of Columbia and Maryland Academies of General Practice** attracted 360 doctors to their third annual all-day Postgraduate Symposium on Current Therapy at the Hotel Statler, May 26. Dr. Maurice Kossow, President of the D. C. Chapter, was moderator at the opening session, and Dr. Merrill M. Gross, President of the Maryland Chapter, was moderator at the afternoon meeting. Dr. Kossow also presided at the luncheon meeting, the speaker for which was Morgan M. Beatty, NBC news analyst. Some 460 doctors and their wives filled the Grand Ballroom for the luncheon.

Speakers for the scientific sessions represented medical schools over a wide area. They were:

Dr. Harper K. Hellems, Assistant Professor of Medicine, Wayne University College of Medicine; Dr. William E. Barfield, Assistant Professor of Endocrinology, Medical College of Georgia; Dr. D. M. Angevine, Professor of Pathology, University of Wisconsin Medical School; Dr. Robert Frazier, Assistant Professor of Pediatrics, University of Iowa College of Medicine; Dr. Howard F. Root, Associate in Medicine, Harvard Medical School; and Dr. Clark H. Millikan, Associate Professor of Neurology, University of Minnesota Graduate School of Medicine.

Photo by L. H. French, M.D.

Dr. Kossow, Moderator at G. P. Meeting

The Washington D. C. Chapter of the American Federation for Clinical Research met in the Medical Society's auditorium, May 23. The following program was presented at this meeting, with several members of the Medical Society participating.

"Chlorpromazine Induced Diuresis," Drs. Edward H. Levine and Alvin E. Parrish, George Washington University School of Medicine and the Veterans Administration Hospital

"The Use of Salizid, and Isonicotinic Acid Hydrazide Analogue in the Treatment of Pulmonary Tuberculosis," Drs. Georges F. McCormick, Sol Katz, James Leonard, James Chambers, James Shea, Abe Gimble, and William Schmidt, Pulmonary Disease Division, District of Columbia General Hospital and the Georgetown and George Washington University Schools of Medicine

"Comparative Studies of Red Cell Survival in Mammal, Bird and Reptile," Drs. Gerald Rodman, Franklin Ebaugh, Jr., and M. R. Spizey Fox, National Institutes of Health

"Evaluation of the Use of an Eighteen Centimeter Sphygmomanometer Thigh Cuff in Determining Arterial Blood Pressure in the Lower Extremity," Drs. Oscar L. Sapp, Glen K. Arney, and T. W. Mattingly, Walter Reed Army Medical Center

"The Effects of Supplementary Calories on Nitrogen Storage at High Intake of Protein in Patients with Chronic Liver Disease," Drs. Irwin C. Plough, Frank L. Iber, Margaret E. Shipman, and Thomas C. Chalmers, Department of Metabolism, Army Medical Service Graduate School, Walter Reed Army Medical Center.

The Washington Society of Pathologists, the Pathology Section of Baltimore City Medical Society, and the Middle Eastern Region, College of American Pathologists, held a joint meeting at the Clinical Center of the National Institutes of Health in Bethesda, May 7.

Dr. Theodore Winship, Senior Attending Pathologist, Garfield Memorial Hospital, was moderator for a Seminar on Diseases of the Thyroid Gland. In addition to his contribution, three papers were authored by Medical Society members: "Some Ocular Lesions of Interest to General Pathologists," Dr. Lorenz E. Zimmerman, Armed Forces Institute of Pathology; "Comparison of Dry and Wet Digestions in PBI Determinations," Dr. Harrison H. Leffler; "Brucellosis and Heart Disease," Dr. Thomas M. Peery, George Washington University School of Medicine.

The medical staff of Garfield Memorial Hospital held their annual banquet, April 28, in honor of their intern and resident physicians. Some 175 physicians and guests were assembled at the Kennedy-Warren, where the dinner was held.

Dr. Harry Hyland Kerr, Consultant in Surgery, presented on behalf of the staff the prizes in the 1955 Kerr Awards. Dr. Mohammed Ali Raad, of Lebanon, received the first prize of $100 and a certificate for his paper, "Prevalence of Rectal and Sigmoidal Adenomatous Polyps in the 'Normal' Adult Population." Second and third prize winners of $75 and $50, respectively, were Dr. Leonard S. Zubroff, senior surgical resident, and Dr. Liselotte Hochholzer, resident in pathology.

Also honored at the banquet were five physicians who together have served the Hospital for more than 180 years. Each was given a gold-headed cane appropriately inscribed. The recipients were Drs. A. B. Bennett, Joseph B. Bogan, Lewis C. Ecker, Janvier W. Lindsay, and Henry C. Macatee.

The medical alumni of Children's Hospital gathered in Washington for their annual meeting, May 21. The program was held in the new Joseph S. Wall Auditorium.

The morning session was devoted to papers by the following essayists: Drs. Harold Stevens, Jonathan N. Williams, Reginald S. Lourie, Samuel P. Bessman, Robert H. Parrott, H. G. Keitel, and S. Leikin. The last paper presented was the prizewinning one by Dr. Frances Millican, Fellow in Psychiatry. The title of her paper was "A Study of the Emotional Aspects of Pica as a Fundamental Etiology of Lead Poisoning in Children."

The afternoon session was highlighted by the unveiling of a portrait of the late Dr. Joseph S. Wall, painted by the Washington artist, Bjorn Egeli, whose first portrait of Dr. Wall hangs in the Medical Society's building. The first Joseph Stiles Wall Memorial Lecture was delivered by Dr. Warren R. Sisson, of Boston, consulting pediatrician at the Massachusetts General Hospital. He spoke on "Adolescence and Some of Its Signs."

The concluding event was a dinner at the Hotel 2400 where Dr. John H McLeod, President of the Alumni Association, presided and gave a brief talk.

Seventy-three members and guests of the **Hippocrates-Galen Society** attended the annual dinner of the Society at the Congressional Country Club, June 2, which followed the golf tournament in the afternoon. Dr. Edward E. Ferguson, President of the Society, presided at the dinner. Entertainment was provided by Washington radio and night club talent.

Arrangements for the outing and dinner were made by Drs. Ferguson, Lloyd G. Lewis, Roy G. Klepser, and Brooks G. Brown. Dr. Lewis awarded prizes to the winners in the golf tournament, in which 32 members participated.

The Alumni Association of the Episcopal Eye, Ear and Throat Hospital held its first Scientific Seminar at the Hospital, May 14. Speakers at the opening session were Dr. John Mattare, who discussed "Anesthetic Problems," and Dr. Lawrence A. Rapee, who spoke on "Adrenal Hormone Therapy." Leading discussion on the two papers were Drs. Allan E. Walker and Victor R. Alfaro, respectively.

At midmorning the program was divided into two sections. Speakers for the Section on Ophthalmology were Drs. Frank D. Costenbader, Melvin Alper, Charles Lanning, Conner Moss, Joseph Dessoff, Marshall Parks, Thomas Haggerty, Benjamin Rones, and Worth Sprunt. Those who participated in the program for the Section on Otolaryngology and Oral Surgery were Drs. Robert Lee, Homer MacIntosh, Harold Krogh, D. B. Moffett, Aubrey D. Fischer, James McFarland, Calvin Klopp, Ralph M. Caulk, Theodore Winship, P. S. Constantinople, and Russel Page.

The all-day session concluded with a banquet at the Hotel 2400 in the evening, with Dr. Harold R. Downey, President of the Alumni Association, presiding. Dr. Peter Lombard was toastmaster. After introduction of the honored guests, the Rt. Reverend Angus Dun, Bishop of Washington, addressed the guests. A special feature of the program was the presentation of an award to **Dr. Irvin Hantman** for his distinguished work in otology and diseases of the ear.

REGISTRATION NEW COLONIAL HOTEL
EPISCOPAL EYE.EAR.THROAT HOSPITAL
ALUMNI ASSOCIATION

DR. HANTMAN CITED BY EPISCOPAL HOSPITAL ALUMNI

Dr. Irvin Hantman (right) is obviously pleased at receiving the first Annual Award of the Alumni of Episcopal Eye, Ear and Throat Hospital from the Right Reverend Angus Dun, Bishop of Washington. Dr. Peter N. Lombard (center) was toastmaster at the banquet which was held at Hotel 2400.

The Washington Psychoanalytic Society, at its meeting May 21, elected the following officers for a two-year term:

Dr. Douglas Noble, *President*; Dr. Alexander Halperin, *Vice President*; Dr. Stanley L. Olinick, *Secretary*; Dr. Hewitt I. Varney, *Treasurer*; Drs. Rex E. Buxton and Mabel B. Cohen, *members of the Executive Council.*

Dr. Winifred G. Whitman was elected to serve for one year as the Society's representative to the Executive Council of the American Psychoanalytic Association, and Dr. Buxton was elected alternate representative

At the annual meeting of the **D. C. Social Hygiene Society,** May 10, Dr. Russell J. Fields was reëlected President. Mr. Allan Fisher, Director of the Legal Aid Bureau, spoke on "The Value of a Family Court in the Community."

The Clinical Society of the Diabetes Association of the District of Columbia held a business meeting, May 25, in the Medical Society's library, during which the following officers were elected to serve during 1955–56:

Dr. James M. Moss, *President*; Dr. Aaron G. Saidman, *Vice President and President-elect*; Dr. DeWitt E. DeLawter, *Secretary-Treasurer*.

Following the business meeting the members heard an address by Dr. D. J. Breithaupt of Toronto, Canada. His subject was "Life Insurance for Diabetics."

The Washington Medical and Surgical Society held its annual banquet, May 25, at the Army-Navy Country Club following an afternoon of golf. Dr. R. E. Gibson, of the Johns Hopkins Institute in Silver Spring, spoke on "Research, Development, and Guided Missiles." Dr. J. Phelps Hand took office as the new President of the Society.

The Washington Gynecological Society held its annual banquet, May 18, at the Columbia Country Club. Dr. Leonard M. Elstad, President of Gallaudet College, gave an inspirational talk, entitled "Hearing Is Believing." Dr. Raymont T. Holden, President of the Society, introduced the speaker and other honored guests.

New officers for the **District of Columbia Chapter of the American Academy of General Practice** for 1955–56 are:

Dr. Samuel Diener, *President*; Dr. Frank S. Pellegrini, *Vice President*; Dr. Roger Kurtz, *Secretary*; and Dr. Samuel Dove, *Treasurer*.

The Jacobi Medical Society elected new officers on May 18. They are:

Dr. Irving Burka, *President*; Dr. Maurice Mensh, *Vice President*; Dr. William Lewis, *Secretary*; Dr. Stanley Kirstein, *Treasurer*; and Dr. Ben Gurwin, *member of the Executive Committee*.

The Washington, D. C. Homeopathic Medical Society met for election of officers, May 31, at the University Club. The new officers are:

Dr. Wyrth Post Baker, *President*; Dr. W. Paxson Chalfant, *Vice President*; Dr. Horace H. Custis, Jr., *Secretary-Treasurer*; and Dr. Julia Green, *Librarian*.

At its April meeting the **Georgetown University Medical Alumni Association** elected the following officers for 1955–56:

Dr. Raymond A. Osbourn, *President*; Dr. August Kramm, *Vice President*; and Dr. William D. Dolan, *Secretary-Treasurer*.

GENERAL NEWS

At the meeting of the **Executive Board of the Medical Society of the District of Columbia**, April 18, Dr. Preston A. McLendon, President, and Dr. Wm. Ross Morris, President-elect, were appointed delegates to represent the Society at the Sixth Annual Health, Welfare, and Recreation Conference for 1955, which was held in Washington, May 13.

The resignation of Dr. John F. Finnegan from the Committee on Professional Liability Insurance was accepted.

At the meeting of the Board on May 23, Drs. J. Rogers Young, James A. Lyon, and C. Edwin McNamara were appointed members of the Advisory Committee to the Labor Medical Center. Dr. Thomas S. Collins was designated alternate delegate to the Advisory Committee.

A communication from the Graduate Nurses Association stated that the Association was organizing a Coördinating Committee, to be composed of representatives of allied professions and the community at large, which will study the functions of the private duty nurses in hospital environment in an effort to improve their morale and working conditions and thereby contribute to improved and efficient nursing service in the District of Columbia. The Association asked that the Medical Society be represented on this Committee; Dr. Stewart Clapp was the Board appointee.

At the request of the D. C. League for Nursing for a Medical Society representative, Dr. Milton M. Greenberg was appointed to serve on a committee which will concern itself with the school nursing program.

Dr. Harvey J. Tompkins, Director of the Psychiatry and Neurology Service of the Veterans Administration for the past seven years, has resigned to become Director of the New Reiss Mental Health Pavilion of St. Vincent's Hospital in New York City. In his new post, Dr. Tompkins will serve as a consultant in psychiatry and coördinator of psychiatric activities for the archdiocese of New York.

Dr. Jesse F. Casey, VA psychiatrist, succeeds Dr. Tompkins as head of the Psychiatry and Neurology Service, effective June 15. Dr. Casey received his medical degree from George Washington University School of Medicine in 1931. His internship and residency training in psychiatry were completed at St. Elizabeths Hospital. During World War II, Dr. Casey served three years in the European Theatre of Operations and was separated from service with the rank of Lieutenant Colonel. Before coming to Washington in 1952 he was Manager of the Veterans Administration Hospital in Topeka, Kansas.

The new **Armed Forces Institute of Pathology** was dedicated, May 26, in ceremonies attended by more than 3,000 people in the north grounds of Walter Reed Army Medical Center. President Eisenhower was present and gave a brief dedicatory address.

Founded 93 years ago in May, the Institute is regarded as one of the world's finest institutions for research into the cause, effect and nature of diseases and injuries of mankind. First known as the Army Medical Museum, in possession of a handful of specimens, it now has nearly 700,000 items. The new structure, built at a cost of $10,000,000, provides 200,000 square feet of floor space. The Institute functions as the central laboratory of pathology for the Defense Department, but also serves other Federal agencies as well as non-Government civilian pathologists. Brigadier General Elbert DeCoursey is Director of the Institute.

Dr. W. M. Stanley, 1946 Nobel Prize winner in chemistry, gave the official dedicatory address in the evening. Dr. Stanley is Professor of Bio-chemistry and Director of the Virus Laboratory at the University of California. A two-day scientific program was held in connection with the dedication, May 26 and 27.

Hospital Service Agency reports new officers for 1955–56: William H. Evans, President; Dr. John A. O'Keefe and Dr. Edward C. Mazique, First and Second Vice President, respectively; Frank A. Birgfeld, Treasurer; and Mrs. Henry Carter, Secretary.

Dr. Angus MacIvor Griffin, Professor of Bacteriology at **George Washington University School of Medicine** since 1949, has been appointed to the newly created post of **Assistant Dean of the School of Medicine.**

Dr. Griffin received his graduate and postgraduate training in the field of biology at Boston University, where he also served on the faculty as Teaching Fellow, University Fellow, and Instructor in Biology. He joined the Department of Bacteriology at George Washington University in 1944. He is on the Academic Council and a member of the Committee on Research at the University. In the School of Medicine he is Chairman of the Committee on Research, a member of the Dean's Council, and a member of the Committee on Admissions. He is also a consultant to the American Council on Education and to the U. S. Veterans Administration Center in Martinsburg, West Virginia.

ANGUS MacIVOR GRIFFIN, Ph.D.

Assistant Dean, George Washington University School of Medicine

Dr. Griffin has served as President of the Washington Branch of the Society of American Bacteriologists and as Chairman of the D. C. Section of the

Society for Experimental Biology and Medicine. He is a Fellow of the American Public Health Association and a member of the Association of American Immunologists and the Washington Academy of Medicine.

Dr. Walter A. Bloedorn, Dean of George Washington University School of Medicine, administered the Oath of Hippocrates to 80 new doctors at the School's **precommencement ceremonies** in the Medical Society's building, June 8. Dr. Preston A. McLendon, President of the D. C. Medical Society and Professor of Pediatrics at George Washington, delivered the principal address.

Miss Virginia Anne Duggins, of Arlington, Virginia, class valedictorian, was awarded the Ordronaux Prize and the Howard F. Kane-A.F A. King Obstetrical Society Award. Mr. Charles M. Aaronson received the Oscar B. Hunter Award in Pathology, presented by the George Washington University Medical Society. Miss Duggins and Mr. Aaronson, together with Mr. Jerome Wolf Canter, of Valley Stream, N. Y., Mr. Charles R. Gill, of Chevy Chase, Md., and Mr. Fred K. Viren, of LaGrange, Illinois, were awarded the Mosby Scholarship Book Awards.

Georgetown University has received a gift of $100,000 from Hugh A. Grant, of Bradford, Pa., an alumnus of the University, to be used for surgical research in the Medical Center. Dr. Robert J. Coffey, Professor and Director of the Department of Surgery, will administer the project, which will be a ten-year study of organ culture.

The ultimate objective of the research is the transplanting of human embryonic and fetal organs from the dead to living persons. Dr. Coffey hopes to devise a method to keep the organs, especially the endocrine organs, growing in an artificial culture until ready for the transplantation. Dr. Charles A. Hufnagel, Professor of Experimental Surgery, will direct the experiments.

Nine research grants, totaling $118,291, have been awarded to **George Washington University School of Medicine** by the U. S. Public Health Service. Several members of the Medical Society are among those who will benefit: Drs. Calvin T. Klopp and Angus M. Griffin, to the extent of $12,573, to continue their studies on the role of infection in biological behavior of cancer; Drs. Louis K. Alpert and Paul K. Smith, $54,244, to continue their research on the chemotherapy of leukemias and lymphomas; and Dr. Joseph W. Still, $2,732, to further his studies on the physiological control of renal circulation.

PERSONALS

Three members of the Medical Society have been awarded honorary degrees this spring in recognition of their contributions to the fields of medicine and education.

Dr. Francis M. Forster, Dean of Georgetown University School of Medicine, received an honorary degree of Doctor of Laws at the commencement exercises of Xavier University, Cincinnati, June 8.

Dr. Murray M. Copeland, Professor and Director of the Department of Oncology at Georgetown, was awarded an honorary Doctor's degree in Science from Oglethorpe University in Atlanta, Georgia at its commencement exercises, June 5. Dr. Copeland, who received his A.B. degree from Oglethorpe in 1923, is the first alumnus in the University's history to be so honored.

Dr. William W. Chase received an honorary Doctor of Science degree, May 30, from his alma mater, Western Maryland College, at Westminster, Md. Dr. Chase received his B.A. degree from Western in 1923. He has been on the Board of Trustees of the College for the past 18 years and Vice Chairman of the Board for 3 years.

Dr. William P. Herbst addressed two urological meetings in California in May. On May 19, in Los Angeles, at the annual meeting of the American Urological Association, he spoke on "Enzymes in the Prostate." On May 20, 21 and 22 he was in Monterey, California, attending the meeting of the American Association of Genito-Urinary Surgeons. Before the latter group he spoke on "Prognosis of Urethral Tumors in the Male and Female."

Dr. Brian Blades, Professor of Surgery, George Washington University School of Medicine, addressed the Genessee County Medical Society in Flint, Michigan, April 12 and 13. The first day he spoke on "Cardiac Arrest," and the second day on "Present State of Pulmonary Carcinoma." Dr. Blades attended the Annual Cancer Day in Charleston, West Virginia, May 9, where he spoke on "Bronchogenic Carcinoma."

Dr. I. Phillips Frohman was chairman for a Luncheon Conference, May 16, sponsored by the New York Academy of Sciences, which featured a Symposium on the Pharmacology and the Physiologic and Psychologic Effects of Tea. In addition to serving as chairman, Dr. Frohman presented a paper on "Beverage and Dietary Aspects of Tea."

Dr. Roland B. Scott, Professor of Pediatrics, Howard University School of Medicine, presented a paper, co-authored by Dr. Melvin E. Jenkins, on "Studies in Sickle Cell Anemia. VII. Blood Volume Relationships and the Use of a Plasma Extender in Sickle Cell Anemia," June 17, at the Chateau Frontenac in Quebec, Canada. The report was given before a combined meeting of the American Pediatric Society, the British Paediatric Society, the Society for Pediatric Research, and the Canadian Paediatric Society. The new treatment described by Dr. Scott was developed on the Pediatric Service of Freedmen's Hospital by Drs. Scott and Jenkins.

Dr. Addison M. Duval, Assistant Superintendent of St. Elizabeths Hospital, took office, May 13, as Speaker of the Assembly of District Branches of the American Psychiatric Association. The Assembly is composed of delegates from the various District branches of the American Psychiatric Association located in the United States and Canada.

On April 11, Dr. Duval received from Mrs. Oveta Culp Hobby, Secretary of the Department of Health, Education and Welfare, the Department's Superior Service Award.

Dr. June Carol Shafer participated in the meeting of the American Dermatological Association at the Bellevue-Biltmore Hotel in Belleair, Florida, April 18–21. Dr. Shafer read a paper at this meeting entitled "Local Cold Injuries; a Report of Sequellae," which was co-authored by Dr. Acors W. Thompson of Falls Church, Virginia. Dr. Shafer is an Associate member of the District Medical Society.

George Washington University School of Medicine has announced the appointment of **Dr. Harold Stevens** to the position of Professor of Neurology, succeeding Dr. Walter Freeman, who resigned when he moved to the West Coast.

Dr. Stevens received his Ph.D. and M.D. degrees from the University of Pennsylvania, where he was appointed University and Harrison Scholar. He received his postgraduate training at the University of Michigan, St. Elizabeths Hospital, and Columbia University.

HAROLD STEVENS, M.D.

Prior to accepting the professorship at George Washington University, he was Associate Professor of Neurology at Georgetown University. He also serves as Chief of Neurology at Children's Hospital, neurologist to Group Health Association Clinic, consultant in neurology to Crippled Children's Hospital and St. Elizabeths Hospital, electroencephalographer with the D. C. Health Department, and consultant in neurology to Mt. Alto Veterans Hospital. He was on the staff of George Washington University as Instructor in Neurology from 1942 to 1946.

Dr. Stevens is a diplomate of the American Board of Psychiatry and Neurology, a Fellow of the American College of Physicians, and a Fellow of the American Academy of Neurology.

Dr. Charles S. Coakley served as examiner for the American Board of Anesthesiology in Colorado Springs, Colorado, March 27–31; he also served in the same capacity with the American College of Anesthesiologists at its meeting in Philadelphia, June 10.

Dr. Paul R. Wilner has been appointed a member of the National Oral Prescription Advisory Committee. This committee met in June to consider a revision of the present standards for oral prescriptions. The appointment was made by Mr. H. J. Anslinger of the Bureau of Narcotics, U. S. Treasury Department.

Dr. Emil J. C. Hildenbrand gave a talk before the Dorchester County Medical Society at Cambridge, Maryland, May 18, on "Surgery in the Treatment of Hypertension."

Mr. Theodore Wiprud, Secretary of the D. C. Medical Society held a conference for residents and interns at Children's Hospital, May 10, when he addressed the group on "Practical Economics of Medicine."

Dr. Lawrence E. Putnam, formerly Associate in Medicine, George Washington University School of Medicine, has been appointed Assistant Clinical Professor of Medicine.

Dr. Waldo B. Moyers, an Associate member of the D. C. Medical Society, has been elected President of the new Prince Georges County Heart Association, which held its organizational meeting in Hyattsville, Maryland, June 6. Among those elected to the Board of Directors of the new Association were Drs. Aaron Deitz, Thomas A. Christensen, Robert McCeney, Beryl Miller, and James Sasscer. Drs. Deitz and Christensen are also Associate members of the Medical Society.

Dr. Helen B. Taussig, of Baltimore, addressed the group along with Clyde E. Arbegast, Executive Director of the Maryland Heart Association.

Dr. Leo B. Gaffney has been elected President of the Catholic Youth Organization of Washington.

Dr. William F. Colliton began a three-year residency in obstetrics and gynecology at Columbia Hospital for Women, July 1, 1955. Dr. Colliton has been in active practice since 1949, with offices at 4221 South Capitol Street.

Dr. J. Wayne McFarland, an Active member of the D. C. Medical Society, has gone to the West Coast to develop a program of health education and medical evangelism at the College of Medical Evangelists in Loma Linda, California. Dr. McFarland, who has served on the staff of the Washington Sanitarium as physical therapist, plans to resume practice in Washington after a few years.

Two other members of the Medical Society have recently moved to California. **Dr. Clemmer M. Peck,** radiologist, is now practicing in San Jose, with offices in the Medico-Dental Building. In tendering his resignation, Dr. Peck stated, "I enjoyed being a member of your Society, which I consider to be the best organized Medical Society in this country."

Dr. M. Isabel Reith, an Associate member of the Society since 1940, is now living in Turlock, California. Her address is 1015 East Main Street.

HAROLD AUSTIN WOOD, M.D.

(1887–1955)

Dr. Harold A. Wood, Washington surgeon, died May 18, 1955, at his home, 8920 Galvin Court, Bethesda, Maryland. He maintained offices at 1625 Massachusetts Avenue, N.W.

Dr. Wood was a native of Waterville, Maine, where he was born February 10, 1887. His parents were Jefferson H. and Acenith Hall Wood, and both his father and grandfather were physicians. Dr. Wood graduated from Maryland Medical College in 1909. Following his graduation he returned to Portland, Maine, where he owned and operated a private hospital.

When World War I began, Dr. Wood was selected to be Director of Surgery and Chief Surgeon for the E. I. duPont de Nemours Co., of Wilmington, Delaware. He served there until 1918, when he came to Washington.

Dr. Wood became an Associate member of the Medical Society in 1920. He was elected to Active membership in 1929. He also belonged to the American Medical Association and the Southern Medical Association.

Dr. Wood's avocational interest was horses. He was co-founder and first President of the Washington Bridle Trails Association and a former member of the Manor Hunt Club. He also belonged to the Potomac Hunt Club and the Congressional Country Club.

A son, Dr. Karl Hayden Wood, oral surgeon, an Associate member of the D. C. Medical Society, survives him.

MATTHEW EDWARD DONAHUE, M.D.

(1895–1955)

Dr. Matthew E. Donahue, retired physician and surgeon, died May 1, 1955, at his home, 3215 R Street, N.W. His offices were located at 1617 Thirty-fifth Street, N.W. during his 27 years of practice. He retired 8 years ago.

Dr. Donahue was a native Washingtonian, born October 19, 1895. He was the son of the late Matthew E. and Mary Ellen Keliher Donahue, both long-time Georgetown residents.

Dr. Donahue was a graduate of old Business High School, Georgetown Preparatory School, and Georgetown University School of Medicine, having received his medical degree from the latter in 1920. He was intern and resident physician at Georgetown University Hospital. Before his retirement Dr. Donahue was Associate Professor of Clinical Surgery at Georgetown and served on the Georgetown Hospital staff.

Dr. Donahue was an Active member of the District Medical Society from 1926 until his death. He was a member of the American Medical Association, the International College of Surgeons, and the Georgetown Clinical Society. He was also a member of the American Legion.

He is survived by his wife, Mrs. Helen Claire O'Donnell Donahue, and three sons and two daughters: Matthew, Jr., William, Michael, Claire and Mollie, all of the home address. Also surviving are three brothers and a sister: John F. Donahue and Dr. James J. Donahue, both of Chevy Chase, Md.; Maurice K. Donahue, of Yorktown Village, Md.; and Miss Mary H. Donahue, of Washington, D. C.

JAMES D. CARTER, B.A., M.D.

(1916–1955)

Dr. James D. Carter, Washington psychiatrist, died suddenly, April 23, 1955, in Baltimore, Maryland.

Dr. Carter was born in New York City, December 22, 1916, the son of Herman and Fay B. Carter. He received his early education in New York public schools and his B.A. degree from Columbia University in 1936. In 1940 he graduated from the Cornell University Medical College in New York. He interned at Lincoln Hospital, New York, from 1941 to 1942.

Following his internship, Dr. Carter enlisted in the Medical Corps of the U. S. Navy, with the rank of Lieutenant Commander. During his period of service, 1942 to 1945, he was assigned to the Pacific Theatre. He was Battalion Surgeon with the Fourth Marine Division at Iwo Jima, for which service he was awarded the Navy Cross for heroism. The citation accompanying the award said he set up an aid station under heavy Japanese fire and continued to operate the station despite ten direct hits on it. In recognition of his heroic service, he also received the Presidential Unit Citation and the Purple Heart.

With the end of World War II in 1945, Dr. Carter resumed his postgraduate training in psychiatry at Henry Phipps Psychiatric Clinic of the Johns Hopkins Hospital. He was an Assistant in Psychiatry at Johns Hopkins Medical School from 1946 to 1947, a Commonwealth Fund Fellow in Psychiatry from 1947 to 1950, and Assistant in Medicine (psychosomatic) from 1949 to 1950.

Dr. Carter was a diplomate of the American Board of Psychiatry and Neurology in Psychiatry. He was a member of the American Psychiatric Association, the Baltimore Medical Society, and the District Medical Society, the latter since 1950. He belonged to the University Club of both Washington and Baltimore.

Dr. Carter lived at 203 Hilltop Road, Silver Spring, Md., and had offices at 2025 Eye Street, N.W. His wife, Dr. Lucille Price Carter, is also a psychiatrist and an Active member of the District Medical Society. Besides his wife, he leaves two small children, Bruce William and Carroll Fay; his mother, Mrs. Fay B. Carter, of New York, also survives him.

WILLIAM FRANCIS PATTEN, M.D.

(1879–1955)

Dr. William F. Patten, retired otolaryngologist, died, April 26, 1955, in a nursing home. Dr. Patten had practiced for more than forty years before he retired eight years ago, owing to World War I injuries. He formerly resided at 1835 Mintwood Place, N.W., with offices at 1746 K Street, N.W.

Dr. Patten was born in Marietta, Ohio, January 18, 1879. He graduated in medicine from Columbian (now George Washington) University in 1904. He had studied abroad in London and at the Vienna Medical School of Ear, Eye, Nose and Throat.

During World War I he was a flight surgeon in the U. S Army with the rank of Major.

Dr. Patten became an Active member of the Medical Society in 1914 and retained his membership until 1935. He had written extensively for medical journals.

Surviving are two sons, James A. Patten, 2316 Fortieth Street, N.W., and William F. Patten, Jr., 4004 Beecher Street, N.W.; a daughter, Mrs. Ralph Powers, Largo, Md.; and a sister, Mrs. N. Pearl Bonar, Columbus, Ohio.

Heart Failure and Hypertension—Johnson, Greene and Jordan

(*Continued from page 350*)

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Treatment of Acne—Gant

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Unilateral Polycystic Kidney—Berman and Oweida

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kidney in the pyelogram taken at 5 months of age, time alone will tell whether this is a case of true unilateral disease.

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PREVALENCE OF RECTAL AND LOWER SIGMOIDAL ADENOMATOUS POLYPS IN THE NORMAL ADULT POPULATION*

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THERE are a number of published reports dealing with the prevalence of adenomatous polyps in autopsy material and in patients with bowel symptoms.[1–4] The information concerning the frequency of these lesions in asymptomatic persons is, however, very meager. In one group of 386 consecutive individuals under the age of 45 and without intestinal complaint, routine sigmoidoscopy showed a prevalence of adenoma of approximately 2 per cent.[5] In another study of 3,364 asymptomatic persons the surprisingly high incidence of 17.2 per cent was found. There are two reasons for this high figure, first, even the most minute lesions were included, and, second, all patients were 40 years and older, an age group in which adenomatous polyps are known to occur more commonly than in the younger group.[6]

MATERIAL

At the Garfield Memorial Hospital Cancer Detection Clinic, where apparently well patients are examined, a unique opportunity presents itself for studying the prevalence of rectal and sigmoidal adenomatous polyps. All patients in this clinic are given a complete physical examination, including a rectosigmoidoscopy, and are routinely referred back to their family physician with a report of any abnormal findings.

TABLE 1

Prevalence of Polyps in Patients Examined, 1946–1954

Patients examined	8,502 (21–75 years of age)
Polyps	139 (21–73 years of age)
Prevalence	1.63 per cent
Average age	47 years
Ratio: Men/women	3:1

Between December 1946 and December 1954, 8,502 consecutive individuals, 21 to 75 years of age, were examined (table 1). One hundred and thirty-nine patients were discovered to have rectal or sigmoidal polyps. This constitutes a prevalence rate of 1.63 per cent. The prevalence of polyps in men was almost 3 times that in women. The average age of the adult patient with a polyp was 47 years, the youngest being 21 years, and the oldest 75. All of these polyps were found in the distal 25 cm. of the large bowel, the average length of a regular sigmoidoscope. One hundred and twenty-five, or 90 per cent, of the patients had a single polyp, while the other 10 per cent had 2 or 3 lesions, which shows again that a significant number of patients have more than 1 polyp.

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* Presented at the Annual Alumni Day of Garfield Memorial Hospital, April 28, 1955. This paper won first prize in the annual competition among members of the resident staff for the Harry Hyland Kerr Awards for 1955.

Only 66, or 48 per cent, of the patients with polyps were followed (table 2). Twelve of the patients traced did not receive any treatment, 11 had the polyp removed but the specimens were not examined microscopically, and 43 patients had the polyp removed and examined pathologically at several different hospitals.

TABLE 2

Findings in Follow-up of 66 Patients with Polyps

No treatment	12
Polyps removed	
No microscopic	11
Microscopic	43
Total	66 (48 per cent)

Nine, or 20.9 per cent, of the 43 polyps examined microscopically were malignant and 33 were benign (table 3). Projecting these proportions to the 85 patients in whom no treatment was instituted so far as is known, 17 patients in this series have a curable but untreated cancer of the colon.

TABLE 3

Diagnoses Following Microscopic Examination of 43 Polyps

Benign polyps	33
Diagnosis equivocal	1
Carcinoma	9 (20.9 per cent)
Total	43

The equivocal case showed the microscopic characteristics of adenomatous polyp but the pathologist could not call it "unequivocally benign, since there was not adequate material to determine the possibility of infiltration." This case illustrates the necessity of obtaining adequate material for a definitive histologic diagnosis. If possible, the tissue removed should include the entire polyp, the pedicle if present, and the base.

Usually carcinoma begins in the periphery of the polyp, and then invades the base. In this series there were 5 carcinomas with a clear pedicle, 3 with invasion of the pedicle, and 1 with metastasis to the regional lymph nodes (table 4).

TABLE 4

Characteristics of Carcinomas in 9 Polyps

Pedicle clear	5
Pedicle invaded	3
Metastasis	1
Total	9

DISCUSSION

The term polyp is a broad designation that includes several types of sessile or pedunculated mucosal tumors projecting into the lumen of the bowel. Adenomatous polyps are neoplasms derived from the intestinal epithelium and therefore are of glandular origin and represent true adenomas. They eventually become polypoid through the traction of their own weight, the pulling of the fecal current, and the peristaltic action of the intestine

The stalk of a pedunculated polyp is composed of connective tissue continuous with that of the intestinal wall and covered by a layer of epithelium continuous with the intestinal mucosa. The polyp itself is usually round or oval with cauliflower-like lobulations and is darker red than the surrounding mucosa. The surface appears velvety and bleeds easily. In general, the smaller adenomatous polyps are more likely to show a regular, smooth outline than large polyps and tend to be gray or pinkish-gray. When the polyps are minute a definite connective tissue stalk may be absent.

The sessile or broad base polyps are not common. The surfaces of the larger lesions are roughened and wartlike. Ulceration is seen frequently, and the tumor may be hemorrhagic.

In accordance with the above interpretation, all hemorrhoids, fibrous tags, hypertrophied papillae, small mucosal excrescences sometimes referred to as polyps, lipomatous polyps and lesions obviously resulting from infection are excluded. The rare variant of the adenomatous polyp called villous or papillary polyp and the rare true multiple or familial polyposis are also excluded. The chief concern here is the true adenomatous polyp, by far the most important and the most common tumor of the colon.

Carcinoma develops in preëxisting adenomas in a fairly high percentage of instances. This percentage is variously estimated from 15 to 40 per cent.[7] It has been said that a polyp becomes a cancer in approximately 2 years.[8] It has also been said that all polyps of the colon are cancerous or will become cancerous if they are not destroyed and if the patient lives long enough.[9]

If early carcinoma is to be detected, all polyps should be removed and submitted for microscopic examination. When the polyp has been removed proctoscopically it is important to destroy the entire base by fulguration. It is also important to observe the patient at frequent intervals to make certain that the tumor does not recur, and in addition to detect new polyps which may have developed. The initial treatment should be the definitive treatment in every possible instance. Polyps in the rectum and rectosigmoid may be reached by careful digital examination or through the sigmoidoscope. The sigmoidoscope gives the examiner direct visual access to the rectum and rectosigmoid, an area where the X-ray examination is of limited value.

SUMMARY

The records of 8,502 consecutive individuals from the Garfield Memorial Hospital Cancer Detection Clinic were reviewed to determine the prevalence of rectal and sigmoidal polyps.

One hundred and thirty-nine patients had polyps. This represents a prevalence rate of 1.63 per cent. Only 48 per cent of the patients with polyps were followed and in 9 of these (20.9 per cent) the polyp was malignant.

A brief discussion of the clinical and pathologic aspects of this disease is presented.

Adenomatous polyps are precancerous lesions, and their early detection and prompt eradication play a paramount role in the field of cancer prevention.

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PRIMARY PNEUMOCOCCAL ARTHRITIS OF THE HIP

Report of a Case

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PNEUMOCOCCAL arthritis is a disease infrequently encountered. In 1944 Boger[1] compiled a series of 227 cases of pneumococcal arthritis from the literature. Of these, 33 were classified as "primary" in the sense that there was no evidence of antecedent infection elsewhere. The following case report exemplifies what appears to have been primary pneumococcal arthritis of the hip joint, successfully treated with penicillin.

REPORT OF CASE

W. M., a 52-year-old Negro laborer, was admitted to the Georgetown University Medical Division of the District of Columbia General Hospital on March 5, 1955 because of pain in the region of the right hip. Three days prior to admission his illness had started acutely with chills and fever. There was also a progressively severe, steady, throbbing pain in the region of the right hip, greatly accentuated by any motion of the right thigh. There was no history of cough, chest pain, dyspnea, or injury to the hip.

The patient was well-developed and well-nourished. He appeared seriously ill, complaining bitterly of pain in the right hip area. The right leg was held in adduction, internal rotation and flexion, and attempts to move the right thigh precipitated severe pain. There was no discernible local heat, swelling or erythema over the hip joint.

There was an easily palpable multinodular goiter, but no evidence of thyrotoxicosis. Except for a grade 3 aortic systolic murmer, transmitted over the entire precordium, there were no detectable cardiac abnormalities. The lung fields were clear, and the abdominal examination was normal.

The temperature was 102°F, the pulse rate 100, the blood pressure 100/80, and the respiratory rate 18 per minute. The hematocrit was 47 per cent and the white blood cell count 17,000, with 79 per cent polymorphonuclears.

The tentative diagnosis was septic arthritis of the right hip joint. A needle aspiration of the joint was done. Three c.c. of greenish-yellow pus was obtained which contained 54,000 leukocytes per cu. mm. (95 per cent polymorphonuclears). Numerous Gram-positive diplococci were seen on smear. Subsequently these proved to be type XII pneumococci. Three blood cultures were positive for the same organism. Roentgenograms of the chest, hip and paranasal sinuses were normal.

Because of the absence of an evident primary source of infection, the cardiac murmur and the positive blood cultures, it was decided to treat the patient as a case of bacterial endocarditis. He received 1,000,000 units of crystalline potassium penicillin every 3 hours for 10 days, followed by 600,000 units of crystalline procaine penicillin every 6 hours for 4 weeks.

The course was one of gradual subsidence of pain, with lysis of the fever over a 7-day period and a subsequent uncomplicated recovery. Despite continued close observation, confirmatory evidence of endocarditis was not detected during the patient's hospitalization. At one time some observers detected a short diastolic blowing murmur in the aortic area, but this was not confirmed by others. The patient was discharged on April 2, 1955, walking well with only a slight limp. Roentgenograms of the right hip at the time of discharge revealed no evidence of bone or joint pathology.

COMMENT

Primary pneumococcal arthritis is a rare disease. In 85 per cent of the cases of pneumococcal arthritis reported in the literature there was a preceding pneumococcal infection elsewhere, almost always pneumonia. Other antecedent pneumococcal lesions have been meningitis, endocarditis, otitis media, pharyngitis, cystitis, and sinusitis.[1]

Although the possibility exists that our patient had bacterial endocarditis, there were no confirmatory signs, such as petechiae, splenomegaly, anemia and changing heart murmurs. Therefore, it seems likely that this case is an example of so-called "primary" pneumococcal arthritis. Bulkley[2] has suggested that this type of pneumococcal arthritis is a manifestation of a bacteremia arising from some undetermined primary focus.

Subsequent to the survey by Boger cited previously, there have been 3 individual case reports of primary pneumococcal arthritis.[3, 4, 5] In all 3 instances the knee joint was involved. These cases exemplify the usual clinical picture of pneumococcal arthritis, that of a monarthritis in a large joint, usually the knee. The joint reveals swelling, tenderness, and pain on motion. The pain may commence gradually or suddenly, and the swelling may be minimal or involve the whole limb. There is usually marked local tenderness and a large amount of joint effusion of greenish, nonodorous pus containing many pneumococci on smear. Although our case, as well as those of Feffer and Hirsh and of Boger, was caused by a type XII pneumococcus, a special type of pneumococcus has not been incriminated as causing arthritis more often than any other. Boger mentions 16 additional cases in which typing was done and noted that there was no particular organism predominating. There were no type XII organisms in that group.

The treatment of pneumococcal arthritis in the past has included arthrotomy, drainage and splinting of the affected joint. Sulfonamide therapy has been disappointing, viable organisms being found in affected joints as long as 3 weeks after institution of sulfadiazine therapy.[5] This might be expected in view of the poor activity of the sulfonamide drugs in situations in which large amounts of pus accumulate. Penicillin, on the other hand, has been quite effective in this disease. It may be given parenterally, rather than intra-articularly, since it has been shown to cross the synovial barrier quite well and to provide high and sustained levels in the synovial fluid.[6] Joint aspirations should probably be repeated often, since the protolytic enzymes contained in pus are rapidly destructive to cartilaginous tissue.

Before the days of antibiotic therapy, extensive joint destruction was the rule, although some cases apparently recovered with minimal damage.[2] At the present time, with early penicillin therapy the prognosis for joint function is quite good.

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THE LAST ILLNESS OF MAJOR WALTER REED

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OVER fifty years have passed since the death of Major Walter Reed. It occurs to one who was his student, assistant demonstrator of pathology in the medical school, and anesthesiologist at his operation, that a brief account of Major Reed's last illness would interest the present generation of surgeons, not because of its contrasting facets with present-day surgery, but rather as a historical item.

I have found most informative the contributions of Brigadier General Albert E. Truby[1] and an account by Major William Cline Borden,[2] intimate friends and close associates of Major Reed. Dr. Howard Kelly[3] wrote a volume on the Yellow Fever Commission, which is authoritative and enlightening.

Major Reed was Professor of Pathology and Bacteriology at Columbian Medical School (now George Washington) during my student days, and like others in my class, I had frequent sessions in the laboratory where he conducted his courses.

Dr. James Carroll was his assistant. Major Reed always met his classes punctually and addressed the students as he walked to and fro in the laboratory. He presented a fine figure, with his military bearing, wavy brown hair, striking profile, and innate dignity. His lectures were classics and held his pupils in rapt attention. Dr. Carroll, in writing of Major Reed as a teacher, said, "Dr. Walter Reed was respected and beloved by all his pupils. Always kind and courteous, earnest and enthusiastic, he imbued them with the same spirit and invariably commanded their respect and attention. A thorough master of his subject and of the English language, he treated the driest and most difficult topics in such a manner as to render them lucid and interesting. His marvelous accuracy and clear conception of every detail of his charming personality and polished manner made him an ideal professor, of whom his students were both fond and proud. Of nervous temperament, he was quick to note and resent the slightest laxity and unattention; and when it came necessary to administer a rebuke, it was implied rather than given directly. . . . The lesson was never forgotten by him for whom it was intended and it was never necessary to repeat it, for the moral effect of the slightest manifestation of his displeasure was far greater than could have been the dread of any other method of reproof."[4]

Dr. James Carroll, who took such an active part in the Yellow Fever Commission, was pathologist to Columbia Hospital in Washington, where I interned, and my relations with him were much more informal than those with Major Reed. Carroll was a contrasting type, tall, gangling, baldish, congenial, and democratic, with a subtle sense of humor. Reed was the magnificent director; Carroll, the master workman. During my internship Dr. J. Wesley Bovée, a close friend of Major Reed, was one of my chiefs on the gynecologic service at Columbia Hospital, and it was one of my duties to give the anesthetic (chloroform) to many of his patients. In the latter days of my internship (1901) with several of my colleagues, we began to experiment with nitrous oxide as a preliminary induction to ether anesthesia, and I launched out as a self-trained anesthesiologist. It was through that series of events and, no doubt, Dr. Bovée's recommendation, that I was requested to give the anesthetic to Major Reed.

Brigadier General Elbert DeCoursey, immediate Past Director of the Armed Forces Institute of Pathology, kindly obtained for me photostatic copies of the hospital record of Major Reed's illness, and, while they may or may not be complete, they furnished some illuminating details.

On Wednesday, November 12, 1902, Major Reed remarked that he was not feeling well and canceled his lecture for that day. In Major Borden's verbal report to the Medical Society of the District of Columbia, subsequent to the operation, he remarked that Major Reed first consulted him on November 14, and a tender area was found in the right lower quadrant of the abdomen "with increased muscular tension in the neighborhood." The patient had colicky pains for 3 days previously; his temperature was 99.4°F and the pulse rate 77. Appendicitis was the diagnosis. The symptoms persisted and the bowels moved by cathartics. The next morning, November 15, the patient seemed better and there was less pain and less tension. The temperature was 98°F, the pulse rate 60. Dr. Borden thought the attack was over, but made the observation that it might recur. The next morning the temperature was 98°F, but the afternoon temperature was 100.4°F, and there were colicky pains but no other untoward symptoms. Dr. Borden advised an operation, and the following morning, Major Reed was operated upon at the U. S. General Hospital, Washington Barracks, D. C. He had been hospitalized since November 14.

Dr. Bovée requested me to give the anesthetic. In use at that time was a Bennet inhaler, consisting of a metal facepiece with a cylinder mounted upon it, which would hold about a handful of gauze. The facepiece had a connection for a tube leading from a nitrous oxide tank and also an opening into the chamber above. This opening could be opened to any degree by the anesthesiologist. Into the chamber the gauze was placed and saturated with ether; the nitrous oxide connection was made and the mask placed upon the patient's face. The nitrous oxide was slowly released, and the patient was instructed to breathe deeply. As he came under the influence of the gas, usually with some cyanosis, the ether chamber was opened gradually until deep anesthesia was induced. The nitrous oxide was then discontinued.

I appeared at the hospital in the morning, shortly prior to the time appointed for the operation, and set up the gas tank and loaded the inhaler with gauze and ether. Major Reed was asked if he had any false teeth (the word "dentures" was not in common use) and he answered with an emphatic "No." The anesthesia progressed smoothly, and Dr. Borden made an incision (the exact type is not recalled) in the right lower quadrant, and after a preliminary examination of the abdominal contents it was enlarged for a better approach to the affected area.

Operations for appendicitis were not common in 1902, and I was greatly impressed by what I saw. The appendix was necrotic throughout, had perforated near the base, and was submerged in a purulent exudate, which was weakly encapsulated by fragile adhesions. In removing the appendix, the adhesions ruptured and the foul pus was spread about the area. The cecum was involved in the inflammatory action to such an extent that it perforated, and the efforts to close the gaping edges were partly defeated by the sutures tearing through the friable cecum. The opening was finally closed, but it was not possible to turn in the edges and approximate the peritoneal surfaces of the cecum. A gauze drain was used and the wound closed with kangaroo tendon and silk. The time of the operation was 1 hour and 20 minutes. Besides Major Borden and his two assistants, Lieutenant Ford and Lieutenant Conner, were Surgeon General O'Reilly, Major Keen, Captain F. P. Reynolds, Dr. Neff and Dr. Bovée.

The postoperative record indicates that broth, beef juice and milk with lime water were the principal nutrients. Morphine (grain ¼) with and without atropine was given for relief of pain, and potassium bromide, tincture of valerian and digifolin were used per rectum. In addition, chloral hydrate and strychnine were administered in the same manner. His temperature varied from 98° to 101°F and the pulse rate from 96 to 102 until the last day of his illness, early November 22, when the temperature reached 101°F and the pulse rate 128.

The hospital photostats which I received do not record the subcutaneous or intravenous use of any fluid, nor was there a record of blood examination or blood pressure. To the best of my recollection, subcutaneous administration of normal salt solution was the only parenteral solution used in 1902. Dr. George Crile had not introduced blood transfusions, nor was the differential blood count or the sphygmomanometer generally employed in the diagnosis of surgical cases. The anesthesiologist was not required to make a record of the course of the anesthetic state or any reference to the operation. Outside of giving the anesthetic he spent his time observing the reaction of the pupils and palpating and counting the pulse.

At the present time we may be inclined to think of the treatment of appendicitis archaic in 1902, but considering the status of medicine and surgery at that period it must be said that Major Reed received the accepted treatment and that he was in most competent hands.

Funeral services were held at St. Thomas' Church in Washington and among the many who attended were Secretary of War Elihu Root, Professors William W. Welch, William Osler and Simon Flexner.[1]

Near the end of a road, on high ground in Arlington Cemetery, lie buried Major Walter Reed and Mrs. Reed. On the tombstone, appropriately facing the South, is inscribed a quotation from President Eliot of Harvard on the occasion when Major Reed was given an honorary M.A. degree, "He gave to man control of that dreadful scourge, Yellow Fever."

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THE TERMINUS AD QUEM OF THE SURGICAL MAN*

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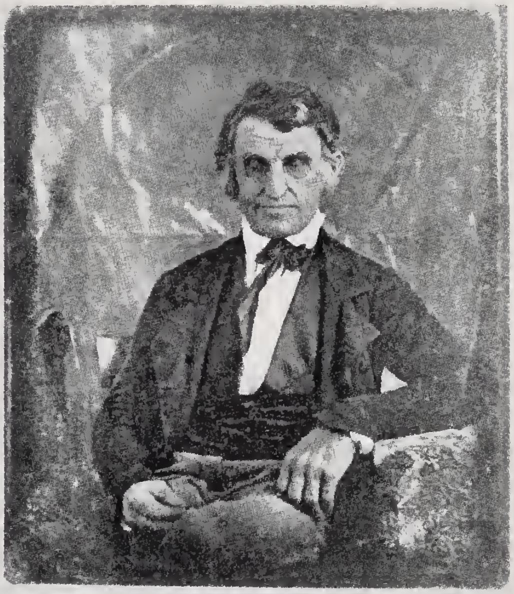
I CAN think of no more appropriate subject for this occasion than "The Terminus ad quem of the Surgical Man." Such a subject comes a-borning at the mention of the distinguished physician for whom this Society is named.

William Beaumont, surgeon in the United States Army, a simple, scientific pioneer, was undoubtedly one of the most interesting personalities in the medical history of the nineteenth century. The clearness of vision with which he sought his goal, the perseverance with which he pursued it, and the selflessness reflected in his undertakings stand as beacons to all young medical men entering upon their life work. Without university or even college training, his medical knowledge obtained through association with two older physicians, Beaumont represents the truly self-educated man, curious and eager to learn. When opportunities arose for adding to his information, he possessed the acumen to recognize their value. Surely it was not by accident that he discerned the opportunity presented by Alexis St. Martin's gastric fistula, and that his study of normal and abnormal physiology of the stomach was prosecuted to the best of his ability with the existing methods of that era.



WILLIAM BEAUMONT
1785-1853

From a hitherto unpublished daguerreotype, in possession of The New York Academy of Medicine, presented by Dr Irving Pardee. This photograph was in the possession of descendants of William Beaumont's brother, Abel Beaumont, of New London.

Reproduced, through the courtesy of the New York Academy of Medicine, from the frontispiece of its Bulletin *of October, 1933.*

These studies carried out by Beaumont became the point of departure for modern gastric research. His work remains a model of patient, persistent investigation, experiment and research. The highest praise we can give him is to say that he lived up to, and fulfilled, his ideals which have been immortalized in his own words, "Truth, like beauty, is 'when unadorned, adorned the most' and, in prosecuting these experiments and inquiries, I believe I have been guided by its light."

It is of interest for us to know that, prior to his time, there was much uncertainty as to what the stomach actually did with the food which entered it. Great, then, is our debt to Beaumont, a man possessed of a truly scientific spirit, who carefully outlined his problems and repeated his experiments time and time again. In addition, he was a man of sturdy character, who had compassion for his patient, St. Martin, even to the extent of housing him, yet made an iron-clad contract with him to insure keeping him within reach and observation. It is a further testimonial to his scientific methods that, although Beaumont began his observations in 1822, he did not publish his findings until 1833. Nor did he have an easy time keeping Alexis St. Martin under observation. His man had a way of disappearing from time to time, and was not altogether sober. Beaumont, himself, as an Army surgeon, was transferred from one post to another and had to persuade his, at times unruly, patient to come along with him. Finally, St. Martin departed for Canda, never to return, and went around the country exhibiting himself as the man with "a lid on his stomach."

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* Address delivered at the Annual Banquet of the William Beaumont Society of George Washington University School of Medicine, May 10, 1955.

Dr. Beaumont was finally transferred to St. Louis in 1834, remaining in Army service until 1839. Hope sprang eternal that some day he might inveigle St. Martin to rejoin him in St. Louis, and, because of this, Beaumont resigned from the Army when it became apparent that his transfer was imminent. Incidentally, during the latter days of his military career in St. Louis, Beaumont became a close friend of Captain Robert E. Lee.

Following his resignation he devoted himself to private practice. His professional work became enormous and, even in his old age, he experienced an "exhilaration and joy" from his work. He continued to practice in St. Louis until 1853, when he had an accident, a fall down some steps. A carbuncle developed on his neck a few weeks later and his death occurred on April 25, 1853, terminating a brilliant career.

Beaumont is buried in a cemetery in St. Louis. An annual pilgrimage is made by the President and selected members of the St. Louis Medical Society to honor his memory by placing a wreath of flowers on his grave.

His celebrated patient outlived him by many years, dying in 1880 at the age of 83, having fathered some 20 children. As a final addendum on Alexis St. Martin, Dr. William Osler had planned to secure St. Martin's stomach for the Army Medical Museum, but when St. Martin died Osler received a telegram, "Don't come for autopsy. Will be killed," and St. Martin's neighbors guarded the grave at night.

It was said of Dr. Beaumont by Dr. F. J. Lutz, who knew him well, that "He was gifted with strong natural powers which, working upon an extensive experience in life, resulted in a species of natural sagacity which, as I suppose, was something peculiar to him and not to be attained by any course of study. His temperament was ardent, but never got the better of his instructed and disciplined judgment. . . . In the sick room he was a model of patience and kindness. His intuitive perceptions, guiding a pure benevolence, never failed to inspire confidence, and thus he belonged to that class of physicians whose very presence affords Nature a sensible relief."

Now, gentlemen, let me return to the Surgical Man. The choice of a physician's career is based upon a complex pattern of intellectual, emotional and practical considerations. He has passed through some of the stages of finding himself. He has developed an understanding of his capacity and what it is meant for. He sees that his previous training was not for ornament or personal gratification, but has furnished the foundation for using himself in unselfish action, with a growing habit of devotion and, at last, a sort of consecration. He has thus perceived the wider meaning of life.

We are more concerned, however, with the considerations which first set his feet on the surgical path. The qualities which make up a surgical career and tend to attract young physicians are, fundamentally, delight in the dexterous use of the hands in the art of surgery, the satisfaction which comes from arriving at the unequivocal answer to a diagnostic mystery, and the appeal of a direct and purposeful attack on a disease process.

It is inherent in such philosophy that other rare and precious qualities are distilled from the crucible of training, when the ingredients are composed of daily contact with mental and physical distress, dedication to its relief, and the things that the last implies, i.e., observation, reading, investigation, and the application of surgical technics. These latter qualities must grow in us. Let us be thankful that the life we live tends to cultivate our nobler qualities, rather than the littleness that shadows our every being.

The first quality found in the distillate is intellectual honesty. A physician or surgeon does not deserve to bear the name if this quality be lacking. Confession of error or ignorance is good for the soul, and an honest appraisal of mistakes, with acknowledgement of them to oneself and one's colleagues, represents a pattern of desirable behavior. What dedicated surgeon can refer to "gremlins" as being the cause of a break in ligature at a critical moment, or as bringing about the disastrous results of inept treatment of malignant disease, or severance of the bowel when opening the peritoneum? These and other surgical misfortunes deserve critical analysis and self-examination. To seek an "out" by placing the blame on some assistant or other circumstance deserves only condemnation, unless exoneration of oneself is certain through careful soul-searching.

A second quality distilled from training and experience is intellectual curiosity. Surgeons have made some outstanding contributions in unraveling the mechanisms of the human body. Surgery offers the open-sesame of stimulus to broaden man's knowledge of human body disorders and clues for correcting them. It is logical that this should be so. Who could be more deeply concerned than the surgeon who has experienced failure, despite his knowledge of disease processes and technical skills? Who can deny the contributions of such men as Paré, Kocher, Lister, Beaumont, Halsted, and a host of notable surgeons who have followed in their train. These men have contributed to antisepsis, asepsis, the progress of surgical technic, organ physiology, fluid replacement, the use of chemotherapeutic agents, the control of neoplastic disease, employment of tissue replacement, application of foreign materials as substitutes for vital structures, and many other advances. The present generation of surgeons continues to explore the areas beyond the horizon, that we may live and be useful in the pattern of human relations.

The third quality of the distillate is equanimity, a priceless possession for any individual and which surgery breeds in difficult situations. Certainly the surgical man is faced with problems that try equanimity to its ultimate limit. Cool decisions must be ever present to meet the disasters at operation which are ever lurking along the path of a surgical career. Equanimity means coolness and presence of mind, clearness of judgment and, withal, serenity of demeanor. To quote from Osler's essay, "Aequanimitas," "It is the quality which is most appreciated by the laity, though often misunderstood by them; and the physician who has the misfortune to be without it, who betrays indecision and worry, and who shows that he is flustered and flurried in ordinary emergencies, loses rapidly the confidence of his patients. . . . In a true and perfect form, this imperturbability is indissolubly associated with wide experience and an intimate knowledge of the varied aspects of disease. . . . Keen sensibility is doubtless a virtue of high order when it does not interfere with steadiness of hand and coolness of nerve."

The fourth and final quality from the crucible of training, courage, goes hand in hand with equanimity to exercise complete intellectual honesty and to foster intellectual curiosity. It is that quality which inspires the surgeon to assume responsibility for action where the remotest chance exists to help the desperately ill patient, no matter the risk. It is the quality that refuses to consider mortality rates or public reaction, except where harm may come to the patient without any potential of benefit. It is bald decision, born of limited time to think, or decision made in the lonely quietness of one's consciousness, lacking the bravos of admiring colleagues or the reluctant approbation of one's peers. Surely there is no profession which so often requires calm, reasoned courage, wrung from the depths of the best that is in a man.

Such qualities as these are rarely attained to the fullest extent by any man. Imperfections obtain in all of us, exemplified by weaknesses of intellect and emotion, or even defects in character. These defections from the ideal have led to some less desirable qualities in the surgical man. The pettiness of our demands and outbursts of temper express failure to meet our responsibilities and, too often, are visited upon our families, assistants, and secretaries. These noble associates more often than not put us to shame by turning the other cheek. The responsibilities of surgical action make such behavior of surgical men easy, but this corollary serves only as an explanation and is a poor excuse for such imperfections. The tensions and pressures of surgery are likened to driving Plato's team, which taxes the best of us. One of our horses is a raging, untamed devil, Irritability, which can only be brought into subjugation by hard fighting and severe training. The other is the white horse, Reason, whose restraint and orderliness of thinking may be disrupted by the proximity of its untamed mate and dash us on the rocks of professional ineffectiveness.

William James has said, "Neither the nature nor the amount of our work is accountable for the frequency or severity of our breakdowns, but their cause lies rather in those absurd feelings of hurry and having no time, in breathlessness and tension, that anxiety of feature and that solicitude of results, that lack of inner harmony and ease. . . ." A panacea for such confused emotions is found in Sir William Osler's "A Way of Life": "The petty annoyances, the real and fancied slights, the trivial mistakes, the disappointments, the sins, the sorrows, even the joys,—bury them deep in the oblivion of each night. . . . Get on the bridge and see at least that the bulkheads are in working order. Touch a button and hear at every level of your life, the iron doors shutting out the past,—the dead yesterdays. Touch another and shut off, with a metal curtain, the Future—the unborn tomorrows. . . . Make the most of each passing day for you have it no more."

Having established what stability and qualities we may possibly aspire to, let us remember that surgical men know each other's trials and know that each has cultivated a modicum of nobility inherent in the surgical art. We are drawn together in a bond of professional association by common problems and methods of solution.

Advance is our final watchword. The method of attainment of that priceless, higher-purposed end and the consummation of the power of advance is indelibly etched upon my memory in the words of my late colleague and classmate, Royal Frazier:

"That priceless dream or vision or awakening something, which stirs the heart to restless yearnings for heights and steps untrod, and wakes the slumbering force that holds the destiny of one's whole life and reveals to him the hidden purposeful ideals towards which he struggles in the face of defeat and failure—harboring faith and hope, pushing through peril, suffering stings and sacrificing self to attain the goal—is the thing in which is locked the force that advances humanity towards the higher purposed end.

"But these yearnings, in most men, are no more than rippling waters that follow the course of the stream, in the midnight silence of the moonlit night, over the impelling precipice, and fall to the pool below, making for a moment the unseen silvery foam which soon disappears forever, as a dream that is only dreamed.

"But in those few whose hearts hold dreams full of purpose and beauty—who live by the light therein, while fearlessly fighting on into the vision beyond, where lies the ideal—there is the power of Advance."

In summing up the *terminus ad quem*, i.e., the goal, toward which the Surgical Man should direct his life, may we refer to Maimonides, a

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GENIUS, ALCOHOL, TOXINS AND LUES

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IN ADDITION to several others, chemical factors are involved in the creation of superior mental ability. It is undoubedly true that a continuity of proper nutrition is quite an essential requirement for superior cortical functioning. Among other elements, a diet particularly rich in the vitamin B complex group is quite necessary for proper brain nutrition. The brain cannot function at its best in the absence of the vitamin B complex group.

Maurier evaluated the ability of two groups of rats to learn a maze.[1] One group was fed on a vitamin B-poor diet. They experienced great difficulty in learning the simplest mazes. The other group, fed on a diet rich in vitamin B, learned the most difficult mazes with ease. Similar experiments on human beings have yielded similar results.

Burr expressed the opinion that a diet rich in unsaturated fatty acids is a requirement for those individuals whose work involves precise and prolonged cortical activity.[1] The articles of food which contain these fatty acids in greater number are olive oil, lard, egg yolk, corn and animal fat.

In addition to these endogenous chemical factors, there are exogenous chemical factors carried into the body by external agents. Among the most profound chemical reactions are those produced by bacterial toxins. Physicians for a great many years have noted a very intimate relationship between the toxins generated by the causative agents of syphilis, tuberculosis and other diseases in the human body and their stimulation of the brain cells to greater mental activity.

Certain authorities have frequently ascribed the stimulating powers of genius to the toxins of tuberculosis. Moorman,[2] particularly, has gone into this phenomenon quite extensively. Undoubtedly there is a sort of restless agitation produced in certain phases of this disease.

Tuberculosis and literary genius seem to go well together. Robert Louis Stevenson, John Keats, Anton Chekhov, Ralph Waldo Emerson, and John Greenleaf Whittier are but a few of the literary giants who had this disease and who produced their greatest work while they had it.[2] The three greatest German authors, Goethe, Heine and von Schiller, suffered from tuberculosis. France gave us Rousseau, de Balzac, Molière and de Voltaire, authors with a definite tuberculous background. There have been a great many authors.

What chemical substance in the bacillus of tuberculosis is responsible for kindling genius is not known. No one has been curious enough at this date to undertake an identification. Perhaps it may be some ferment, some unusually sharp catalyst, which enters fiercely into chemical reactions that kindle the imagination and produce creative thinking of a very high order.

Syphilis is another disease which produces toxins which in some way brings about chemical reactions within the brain that are productive of superior creative imagination. Beethoven, Schopenhauer, Donizetti, Smetana, Eugène Sue, de Maupassant, Baudelaire, and de Mirabeau are but a few of the men of great talent who produced their best work while syphilis in its active form ravaged their bodies.

Beethoven had acquired syphilis in his early twenties, and his entire active period in music was while he was under the influence of this disease.[3] He underwent treatment of a sort, a rather ineffective regimen, but his musical genius remained undimmed, in spite of the fact that it was this disease which had robbed him of his most precious possession, his hearing.

The other musicians, Donizetti and Smetana, wrote their best music after they had been infected with syphilis.[4] Smetana also lost his hearing, but this did not prevent him from composing "The Bartered Bride" and "Dalibor." Donizetti wrote his greatest operatic scores while lues generated its fearsome neural poisons in his system.

Eugène Sue was a physician, but he is best known as a writer, being the author of the "Mysteries of Paris." He acquired syphilis while in active medical practice. He gave up medicine when be began to suffer from tabes, and became an author. His novels were written while suffering from this disease.

De Maupassant was infected with syphilis at the age of 21.[5] Cerebral disturbances became manifested within a short time. During the 10 years that the luetic toxins saturated his system he wrote 6 major novels, 21 novelettes, and 2 dramas, and left behind him 2 unfinished novels. Half a year before his death he wrote his mother, "Never before in all my life has it been as easy to create as it is just now."

Similar was the case of Heinrich Heine, who had both syphilis and tuberculosis.[6] He produced his immortal work when both these diseases were sapping his physical strength but on the contrary were kindling his mental abilities to their highest pitch.

Murger, the French novelist, died at the age of 39 of syphilis.[6] He wrote his best and most widely read novel, "Scènes de la vie de bohème," shortly before his death. Mirabeau, poet, politician, and French revolutionary leader, became infected with syphilis before he rose to his greatest heights as a poet and leader.

Two well known painters, van Gogh and Gauguin, both developed a new school of art and both had the disease. Van Gogh was infected with syphilis in his early youth and died of its effects at the early age of 37.[7] He became a painter at 27, when syphilis made its greatest inroads. The farther this disease progressed the greater became his working capacity. Gauguin, founder of the modernistic school of painting, did his most original work when the pallida had thoroughly saturated his system with toxins.

Emil von Behring was doing mediocre work until he became infected with syphilis.[8] Then his genius was kindled, and, even when paralyzed as a result of syphilis, he founded the science of immunology. He received the Nobel prize when syphilis had made its stamp on his system unmistakable.

Nietzsche, the German philosopher, was infected with syphilis when he was 25.[9] It became severe when he was 44 and lasted for 12 years. It was during this time that he wrote his works on philosophy which carried his name to the far corners of the earth.

Alcohol is another chemical which seems to have an intimate relationship to superior mentation under certain conditions. Alcohol in rational moderation and not to sordid excess in certain instances seems to act as a sort of catalyst to creative thinking.

Morality is not a question to be discussed in this connection. When the facts are examined they speak for themselves. There is no doubt that alcohol has played a very interesting role in human affairs from the earliest times.

History tells us that civilization first arose in the Northern Hemisphere, where it grew steadily and sturdily. The people of this hemisphere seemed, for the most part, to be an alcohol-drinking lot. On the other hand, civilization lagged woefully in the Southern Hemisphere, where alcohol for the most part was an unknown quantity.

In the same way the nonalcohol-drinking Gauls were unable to resist the alcohol-drinking and conquering Romans. Gaul was dry; Rome was wet. Gaul was feeble and poorly civilized; Rome was mighty and the center of civilization in those days. But during the tenth century civilization in the Rhine country began to rise rapidly. Alcohol had been introduced by the conquering Romans and found to be desirable.

In the East a similar thing happened. When the Moslems drank wine the Golden Age of Eastern civilization was in full bloom. The immortal Arabian Nights were written; mathematics was at a high stage of its development; medicine and the sciences were making great progress. However, after the fifteenth century, when strong-willed fanatics got the controlling hand and prohibited the use of alcohol as a beverage and turned the Moslems into a coffee-drinking people, civilization began to set in the East. In fact, so stupid had the Moslem coffee-drinkers become that they had to employ the alcohol-drinking Copts to keep their acounts in workable order.

In later times historians observed that the rise of the Dutch Republic was strongly coincident with the universal adoption of the widespread drinking of gin. With increasing popularity of the ethylic liquid, religious and political freedom became actualities. The arts and sciences began to flourish, and many important enterprises were undertaken.

The same is to be said for the brilliantly intellectual Elizabethan period in English history, when booze flowed freely and England produced her most interesting men and women. When the neighboring Scots adopted the use of whiskey in the eighteenth century there followed almost at once the rise of the Caledonian peasantry.

Alcohol and literary creativity often go hand in hand. In the dawn of Chinese civilization, the poet, Li Tai Po, sang her sweetest songs and drank freely of soybean wine. During the sixth century before Christ some of the most delightful poetry was written by Anacreon, who derived most of his inspiration from alcohol, and in appreciation some of his best odes were dedicated to it.

Aeschylus, the greatest of Greek dramatists, wrote his immortal tragedies when liberally supplied with alcohol. Similarly, Eupolis and Cratinus would not lift a pen unless they had had several goblets of wine. Homer drank and praised alcohol because of "the spirit it brought, to dare things high, and set up an end to my thoughts."

The Latin poet, Horace, said that the elder Cato attained his greatest eloquence when he was thoroughly warmed by wine. Catullus certainly drank wine freely, and Ovid and Seneca did not conceal their great love for alcohol.

The immortal tent-maker and poet, Omar Khayyám, author of "The Rubáiyát," did not hesitate to confess his love for wine. When asked what his King might do for him he replied: "Place me where wine in abundance may inspire my Muse." He was accordingly pensioned and sent to Nishapur, where he found wine in great abundance.

Another poet, Chaucer, loved wine not a whit less.[10] His greatest work was done while under its influence, and he did so well that the King granted him a daily pitcher of wine to maintain his excellence. This he did to such perfection that the King granted him a tun of wine in 1398.

Robert Herrick's poetry took flight on wings of alcohol. Ben Jonson, the first of the poets laureate of England, enjoyed his canary wine so well and with such excellent literary results that the King made a tun of canary wine the yearly gift to his laureate. The poets laureate who followed Jonson—Davenport, Dryden, Shadwell, Tate, Rowe, Eusden, Whitehead and Wharton—enjoyed the kingly gift and derived their poetic inspiration from it. To this day the tun of canary wine goes with the poet laureateship of England to insure literary excellence.

The greatest of all Elizabethans, William Shakespeare, not only admired alcohol, but gave it a place of prominence in his immortal dramas. Some of his greatest creations were habitual drinkers, Falstaff, Caliban, and Sir Toby Belch. And as an afterthought, Francis Beaumont, John Fletcher and William Hogarth, in addition to other Elizabethans, were men of great creative ability as well as consumers of alcohol.

The greatest of all Spanish writers, Cervantes, admitted without blushing: "I can no more give up drinking for pleasure than if I had been born for nothing else." His greatest masterpiece, "Don Quixote," was written when he was thoroughly inspired by alcohol.

The polished English essayist, Addison, kept a bottle of wine at each end of the long gallery at Holland House.[10] Here he was in the habit of walking back and forth while writing his essays. Every once in a while he would pause and take a drink to aid his thoughts in forming. This he would continue to do until he attained the proper degree of exhilaration, when he set his thoughts down on paper. His neighbor, Alexander Pope, drank with him as well as with Dryden, Swift and Steele, a most merry and excellent company of men whose best work seemed to have been accomplished when their blood had been thoroughly warmed by alcohol.

Another of the immortals in English letters, John Gay, who by writing "The Beggar's Opera" invented comic opera, discovered at the age of 22 that wine had the fascinating quality of aiding his poetic composition. He was not long in discovering that under the influence of alcohol he was able to produce his best work. When he ceased to drink his literary productions also waned. This he soon realized, for in 1730 he wrote to Swift: "I continue to drink nothing but water, so that you cannot require any poetry of me."

This was also true of Swinburne, for when he finally ceased to take alcoholic drinks his productive powers failed him. Oscar Wilde ascribed his brilliance to alcoholic beverages, as did Goldsmith. Smollett drank "like a fish" and insisted that his friends do likewise. His contemporary, Fielding, had the most unhealthy and unhappy habit of chewing tobacco while he drank champagne. Yet this did not seem to have any ill effects on him.

Burns wrote his poetry "by the lee side of a bowl of punch, which had set every mortal in the company except the hautboy and the Muse." Richard Sheridan could not put pen to paper unless his sprits had been loosened by wine. He would not attempt to make a speech unless he swallowed a tumbler of raw whiskey. Lamb was constantly under the influence of alcohol. He seemed particularly fond of gin and water.

Moore, the Irish poet, drank alcohol consistently and loudly sang its praises in his poetry. Hazlitt, the brilliant English essayist, became dull like Swinburne had when he gave up alcohol. Byron drank and wrote at the same time. His masterpiece, "Don Juan," was composed while Byron was under the influence of gin. Thompson said that he "was dull until excited by wine."

One of the greatest of all American writers, Edgar Allan Poe, was addicted to alcohol and was quite notorious during his lifetime for this failing.[11] Yet his greatest creations came into being when he was inebriated. Walt Whitman tells us that he turned out his poetry "with the help of a bottle of port or whatnot." During the early years, when he did not drink, his literary productions were rather mediocre. But after he had become acquainted with alcohol his work improved decidedly.

Within more recent years Jack London confessed that he could not work well without alcohol. "I took my drink, at once my brain loosened up and began to roll off the words." The novelist, Harold MacGrath, stated quite frankly that he doubted if any teetotaler had ever written a great book, painted a great picture, or composed a masterpiece in music.

Many of those addicted to the use of drugs claimed that they could work best when thus artificially stimulated. Emerson knew that quite a few literary men were in the habit of seeking inspiration in drugs. It was his considered opinion that drugs actually gave no inspiration. It was not the inspiration, he insisted, but "some counterfeit excitement and fury."

To a lesser extent certain men of genius have been addicted to the use of drugs, notably opium and its derivatives. Among those who were known to have been addicted to some form of

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President's Page

WHY NOT HUMAN RELATIONS?

Like most doctors, I have only become conscious of the term "public relations" in recent years. My recollection is that I first became cognizant of so-called Public Relations in 1949 when the AMA's House of Delegates voted to assess each Association member $25 for an "educational campaign." Like many of my confreres, I was not enthusiastic about the assessment. The arguments for it were not too convincing nor did the blueprint for the campaign appeal to me.

Since becoming a member of the official family of our Society, I have learned that no self-respecting organization considers itself properly organized without a public relations program. These programs vary from the employment of a single individual to departmentalized and expensive undertakings embracing a variety of features developed by imaginative executives.

Organized medicine is comparatively a newcomer in the field of public relations. When the AMA and its various component units finally decided to adopt public relations programs in an effort to gain prestige and good will, they went all out. An impressive amount of money was expended, not all of it wisely to begin with, I understand, but subsequently more judiciously. Those competent to judge have felt that the programs have been of superior quality, and the results gratifying.

My feeling based on limited observation is that the current programs deserve our wholehearted support. However, as has been pointed out by those employed to direct them, they are at best supplementary. The key figure in any medical public relations program is the physician himself. In the final analysis, its success or failure depends on the physician maintaining a satisfactory relationship with his patients.

In view of this, and the skepticism with which many medical men have viewed the expenditure of large sums for "public relations," wouldn't it be better to adopt the term "human relations"? After all, physicians are primarily concerned with the health of individuals. It would seem much more appropriate therefore to place emphasis where it belongs —on the more intimate aspect of their relations with the people. Not of least importance, such a term applied to a medical public relations program would be more palatable where both the public and the medical profession are concerned.

W. Ross Morris

Editorials

THE ASSEMBLY'S SILVER ANNIVERSARY

Every successful endeavor is the result of the labor and vision of forward-looking individuals. This has been especially true of the ANNUAL SCIENTIFIC ASSEMBLY, which will celebrate its Silver Anniversary this year.

Our Society can look back with pride on the progress which the ASSEMBLY has made over the past quarter of a century. It can and will show its appreciation to Dr. Charles Stanley White, who was largely responsible for its existence. He visualized it as an instrument for more effectively presenting subject matter of common interest to all physicians. Needless to say, the ASSEMBLY has more than lived up to expectations.

In 1929 the Medical Society had 710 members, 210 of whom attended the first ASSEMBLY in the Medical Society building. Currently, the Society's membership is approximately 2,000. There were 1,815 physicians in attendance at the 1953 ASSEMBLY, most of them from the District but a sizable number from the surrounding area.

Certainly, there could be no better evidence of the ASSEMBLY's vitality than the increasing number of doctors who find its sessions stimulating and informative. It is also significant that there are few medical meetings in this country which bring together physicians with such varied interests. In attendance one finds researchers, teachers and the practitioners all in a common quest.

This year's program will be varied. At the forefront are subjects pertaining to the evaluation of the Salk vaccine program and the practical, every-day usefulness of the radioisotopes. Highlighted will be important medical legislative subjects which will influence every physician in the District of Columbia—the Veterans Medical Care Program and the Government Civil Service health measure soon to come before Congress. There will also be a panel discussion concerning the somewhat controversial tissue committee, advocated by the American College of Surgeons to be an essential part of every recognized hospital staff.

The scientific and motion picture exhibits have been considerably expanded, and it is believed that the subject matter will be more varied and interesting than in previous years.

The ASSEMBLY will come to a close on Wednesday with a cocktail hour, a "speechless" banquet, and entertainment produced, acted, and directed by our own fellow physicians.

ALFRED A. J. DEN, M.D.
General Chairman,
25th Annual Scientific Assembly

POSTOPERATIVE MYOCARDIAL INFARCTION

There are times when the diagnosis of myocardial infarction can be quite difficult because the clinical features are somehow atypical. For example, in older people especially, the coexistence of cerebral arteriosclerosis and coronary arteriosclerosis may account for situations in which coronary occlusion presents as an attack of cerebral apoplexy. Retrospectively,

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

such an episode may be reconstructed as follows:

Coronary occlusion is the prime event and causes a drop in arterial blood pressure. This in turn accounts for cerebral ischemia. Under other circumstances, the reduction of blood flow to the brain might be tolerable but, in the presence of cerebral arteriosclerosis, encephalomalacia results. The consequent "stroke" so dominates in the patient's symptoms that the initial trouble, the coronary occlusion, may be overlooked unless an electrocardiogram is obtained opportunely.

As another example of myocardial infarction in which symptoms are likely to be atypical, Wasserman, Bellet and Saichek[1] present the records of 25 patients in whom the infarction developed after a surgical operation. In 21 cases the operation was a major one. All of the patients were 50 years of age or older, and 19 of them had given evidence preoperatively of organic heart disease (mainly hypertensive or arteriosclerotic or a combination of the two). The only other evident predisposing factor was an incident of hypotension during surgery; this was observed in 12 instances and lasted from 5 to 30 minutes.

In almost all cases the onset of the myocardial infarction was on the day of or within the first 7 days of surgery. In only 8 patients was there a record of typical chest pain. However, some of these and most of the others showed a significant postoperative hypotension. In a sense, therefore, hypotension was the more reliable signal of postoperative myocardial infarction. Electrocardiograms were satisfactorily "characteristic" in all patients. In 21 instances fortuitous possession of a preoperative tracing made interpretation of postoperative electrocardiographic changes all the easier. For diagnostic purposes this indicated that there would be considerable advantage to obtaining an electrocardiogram routinely before surgery in certain patients (older people, those with evident organic heart disease).

Diagnostic considerations in postoperative myocardial infarction are, after all, more academic than practical. Still, the report by Wasserman's group afforded an opportunity for some hopeful suggestions for prevention of this catastrophe: (1) recognition preoperatively of susceptible patients, (2) correction of remediable predisposing factors (anemia, polycythemia, dehydration, poor nutrition, infection, inordinate anxiety, arrhythmias, congestive heart failure), (3) continuation of oxygen inhalation during the postoperative period, (4) avoidance of hypotension during surgery, and (5), in the presence of an increased cardiac risk, limitation of the operation to a procedure carefully planned in advance.

H.H.H.

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[1] Wasserman, F., Bellet, S., and Saichek, R. P.: New England J. Med., 1955, **252,** 967.

PRIVILEGED COMMUNICATIONS

Physicians of the District have been interested in a recent decision of the United States Court of Appeals for the District of Columbia (Taylor v. U.S., March 14, 1955, No. 12034) which interpreted the District statute relative to privileged communications. That law forbids a physician to disclose without the patient's consent confidential information obtained by the physician in his professional capacity, the only exception being in criminal cases in which the accused is charged with causing the death of, or inflicting injuries upon, a human being.

Taylor, charged with robbery, had been committed to St. Elizabeths Hospital as mentally unfit to plead to the charges, and later had been returned to court as sufficiently improved to stand trial. At the trial the defendant pleaded insanity as a defense, but a physician from St. Elizabeths Hospital testified that Taylor had admitted malingering and that he was not psychotic. The Court of Appeals reversed the conviction (Judge Prettyman dissenting) on the ground that the physician had treated Taylor and that therefore the information was privileged.

The Court drew a distinction between examination for purposes of testimony and examination for purposes of treatment, the former not conferring a privilege of silence. In a hospital, however, no such distinction can be drawn; all patients in a hospital are under treatment.

In a criminal case the question of the defendant's sanity does not ordinarily come up in the defense unless the defendant himself raises it, since all defendants are presumed to be sane. Thus we see that under the Taylor decision the defendant can bring in testimony to the effect that he was "insane" at the time of the act, while the Government is not permitted to introduce evidence to the contrary, even if it has such evidence. As a matter of fact, that very situation has arisen in a few cases lately. It has been held in other jurisdictions that in offering the testimony of physicians to prove "insanity" the defendant waives the right to object to the testimony of other doctors who may have examined him.

The Hart Committee has proposed, therefore, that the privilege statute be amended to except from its operation evidence relative to the accused's mental competency or sanity in criminal cases where the accused raises the defense of insanity.

Such a provision seems logical and entirely fair to the accused and to the public. The amendment has already been passed by the House and hopefully will have been passed by the Senate and have become law before this note appears.

W.O.

"BRUTON'S DISEASE"

The exact etiology of this disease has not been fully established at this time. Whether it is a congenital disturbance in gamma globulin synthesis as in hemophilia or afibrinogenemia in all cases, or whether some cases may acquire this disease by virtue of a disturbed liver function has not been fully determined. The relationship of gamma globulin to resistance in disease, of course, has been well established for many years. It remained, however, for Colonel Ogden Bruton of the Walter Reed staff to make the first observations in a child who had repeated infections that this was the basis of his diseased state. Agammaglobulinemia is the more unwieldy term that has been assigned to this condition in a very rapidly expanding literature.

Attention is again brought to this entity by virtue of the occasion of Dr. Bruton's transfer from the Walter Reed Army Medical Center to his new station in Honolulu. This outstanding pediatrician has left his professional mark on the Washington scene by virtue of his excellent supervisory training given to many pediatric residents in his charge and to the many medical students whose training he has supervised as Assistant Professor of Pediatrics at Georgetown University. The importance of his original clinical observations cannot be underestimated and are attested to by the tremendous interest that has been manifested in practically all research centers in this entity. Any person, particularly a young child, who has multiple recurrent infections should arouse one's suspicion as to the presence of agammaglobulinemia. Although it is frequently difficult to demonstrate any particular focus, the infections are usually quite severe and the patients are often critically ill. Although antibiotics may lower the incidence, large doses at repeated intervals are usually necessary to give even partial control of these infections. Repeated attacks of pneumonia and skin infections are common; repeated attacks of mumps and measles similarly should lead one to think of this condition as should a persistent negative Schick test despite attempts at immunization. It may be postulated that the patient's antibody mechanism has been altered by some influence so that it is no longer able to synthesize and hold antibodies for a specific organism.

With the more widespread use and availability of paper electrophoretic methods for determining gamma globulin blood levels, greater knowledge of this entity in infectious diseases should be forthcoming.

Dr. Bruton's observations of the value of periodic gamma globulin administration to these patients have considerable therapeutic significance.

F.G.B.

DELEGATES' REPORT ON AMA MEETING IN ATLANTIC CITY, JUNE 6–10, 1955

At the Atlantic City meeting of the AMA House of Delegates, the hottest issues were:

1. Relationships of physicians and osteopaths
2. A report of the Committee on Medical Practices
3. The propriety of physicians' dispensing drugs and appliances.

Altogether, the delegates considered about 75 resolutions from their membership, worked through a mass of reports and supplementary reports, listened to the usual quota of speeches by officers and special visitors, made the 1955 AMA Distinguished Service Award to Dr. Donald G. Balfour (Mayo Clinic surgeon, author and researcher), and elected the following officers and Council members:

President-elect: Dwight H. Murray (Napa Valley, Calif.)
Vice President: Millard D. Hill (Raleigh, N. C.)
Secretary: George F. Lull (Chicago)
Treasurer: J. J. Moore (Chicago)
Speaker of the House: E. Vincent Askey (Los Angeles)
Vice Speaker: Louis M. Orr (Orlando, Fla.)
Trustees:
  James R. Reuling (Bayside, N. Y.)
  L. W. Larson (Bismarck, N. D.)
  T. P. Murdock (Meriden, Conn.)
Judicial Council: Louis A. Buie (Rochester, Minn.)
Council on Medical Education and Hospitals:
  Harland English (Danville, Ill.)
  James M. Faulkner (Boston)
Council on Medical Service:
  H. B. Mulholland (Charlottesville, Va.)
  A. C. Scott (Temple, Texas)
  R. B. Chrisman, Jr. (Miami, Fla.)
Council on Constitution and By-laws:
  B. E. Pickett, Sr. (Carrizo Springs, Texas)
  Warren Furey (Chicago)

OSTEOPATHY

The osteopathic issue has been smoldering for more than two years. A special committee of the House had recommended repeatedly that osteopathy be declared no longer "cultism" and that it be declared proper for physicians to teach in schools of osteopathy.

This year the majority of the Reference Committee on Medical Education and Hospitals supported that latter proposal—that it be declared proper for physicians to teach in schools of osteopathy. However, a lone member of the Committee used his privilege to present a "minority" report, as follows:

> "One member of the Reference Committee was completely satisfied that an appreciable portion of current education in colleges of osteopathy definitely does constitute the teaching of 'cultist' healing, and is an index that the 'osteopathic concept' still persists in current osteopathic practice. Since he cannot with good conscience approve the recommendation that doctors of medicine teach in osteopathic colleges where 'cultism' is part of the curriculum, he respectfully makes the following recommendations to the House of Delegates:
>
> "1. That the report of the Committee for the Study of Relations Between Osteopathy and Medicine be received and filed; and that the Committee be thanked for its diligent work, and be discontinued.
>
> "2. That if and when the House of Delegates of the American Osteopathic Association, their official policy-making body, may voluntarily abandon the commonly so-called 'osteopathic concept,' with proper deletion of said 'osteopathic concept' from catalogs of their colleges; and may approach the Trustees of the American Medical Association with a request for further discussion of the relations of Osteopathy and Medicine, then the said Trustees shall appoint another special committee for such discussion."

The minority report was adopted. In effect, this action closes the door to negotiations until the osteopaths themselves ask to have it reopened—something they have seemed uninterested in doing.

Medical Practices Committee Report

A year ago a special committee had been appointed to study medical practices, chiefly in a search for unethical practices and the related public relations problems. That committee had issued a report to the Board of Trustees at the Miami AMA meeting last December, but action on the report had been deferred, pending thorough study.

In Atlantic City, the Board presented a digest of and commentary on the report of the committee. It was apparent that the Board thought it unwise to release the full report, mainly because portions of it are highly critical of physicians.

The Reference Committee on Insurance and Medical Service sought to condone that action of the Board. However, the delegates disagreed. They moved to defer action on the whole problem until December. Meanwhile, the report of the Committee on Medical Practices was to be distributed to all delegates. This has been done. Undoubtedly, portions of the report will soon appear in print in various periodicals.

Dispensing by Physicians

A year ago the AMA Principles of Medical Ethics was amended to include a section that declared, "It is unethical for a physician to participate in the ownership of a drugstore in his medical practice area unless adequate drugstore facilities are otherwise unavailable. This inadequacy must be confirmed by his component medical society. The same principle applies to physicians who dispense drugs or appliances. In both instances, the practice is unethical if secrecy and coercion are employed or if financial interest is placed above the quality of medical care. On the other hand, sometimes it may be advisable and even necessary for physicians to provide certain appliances or remedies without profit which patients cannot procure from other sources."

Opposition to this "ethic" came mainly from ophthalmologists who have been accustomed to supplying patients with spectacles. Finally, on recommendation of the Reference Committee on Miscellaneous Business, the disputed principle was replaced with the following: "It is not unethical for a physician to prescribe or supply drugs, remedies, or appliances as long as there is no exploitation of the patient."

The committee went on to recommend that this new section of the Principles of Medical Ethics should be interpreted in line with another section that reads: "The ethical physician, engaged in the practice of medicine, limits the sources of his income received from professional activities to service rendered the patient."

Resolutions Presented from the Medical Society of the District of Columbia

Delegate Holden presented the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

Subject: Presumption of Service-connected Disabilities

Whereas, The relationship between military service and the subsequent development of disease or disability cannot be arbitrarily defined or established by law; and

Whereas, The present practice of establishing service connection for a variety of diseases by legislative fiat without individual evaluation is resulting in a distortion of the underlying theory of legislation providing veterans' medical care; and

Whereas, The continuation and expansion of this practice will inevitably result in a defeat of the purpose and intent of the position of the American Medical Association with respect to veterans' medical care which was adopted in New York in June, 1953; therefore be it

Resolved, That the American Medical Association adopt a firm position in opposition to the establishment of service connection by presumption for disabilities developing after the termination of military service; and be it further

Resolved, That those diseases whose service connection is now established by legislative fiat without individual evaluation must in the future have their service connection established by firm medical evidence; and be it further

Resolved, That some mechanism be established at a local and/or national level to aid effectively in the determination of service connection and that the details of this mechanism be arrived at in coöperation with proper representatives of the medical profession and the authorities of the Veterans Administration; and be it further

Resolved, That the American Medical Association support any legislation which will accomplish these objectives; and be it finally

Resolved, That this position be communicated to the Administrator of Veterans' Affairs, the chairman of the Committee on Veterans' Affairs of the House of Representatives, and to the chairman of the Committee on Finance of the United States Senate.

This resolution received the endorsement of the Reference Committee and was subsequently approved by the House of Delegates.

Delegate Hussey presented a resolution in behalf of ophthalmologists of the District of Columbia. It was as follows:

SUBJECT: Policy of American Optometric Association re Exclusion of Ophthalmologists from Field of Visual Care

WHEREAS, It is the stated policy of the American Optometric Association to exclude all others from the field of visual care, including the ophthalmologist; and

WHEREAS, Legislation to implement this policy has been introduced in the various states and the District of Columbia; and

WHEREAS, The enactment of such laws would deprive the general public of the highest caliber of professional medical eye care; and

WHEREAS, Refraction is considered an integral function of medical ophthalmology; therefore be it

Resolved, That this House of Delegates approve the efforts of the Executive Council of the Section on Ophthalmology of the American Medical Association to safeguard the public from restrictive legislation designed to deprive the public of adequate medical eye care.

This resolution was sent along with other similar ones to the Reference Committee on Miscellaneous Business. It was endorsed and was subsequently approved by the House of Delegates.

OTHER ACTIONS

Internship Approval Programs. The House adopted the following statement presented by the Reference Committee on Medical Education and Hospitals:

"Your Committee has reviewed the report of the Council on Medical Education and Hospitals which includes a summary of the reports previously made to the House of Delegates by the Ad Hoc Committee on Internships and are in agreement with the Council that these conclusions and recommendations are eminently sound and that they should be incorporated into the principles and policies employed by the Council in the conduct of its internship approval programs including subsequent revisions of the Essentials of an Approved Internship.

"Your Committee wishes specifically to reaffirm the following recommendations of the Ad Hoc Committee on Internships:

"1. That a continuing study be made as to what should be the content of an internship; what constitutes sound clinical experience during the internship year.

"2. That the 'one-fourth rule' be adopted: Any internship program that in two successive years does not obtain one fourth of its stated complement be disapproved for intern training. It was pointed out to your Committee in the hearings that statistical data compiled for a period of two years indicated that enforcement of this rule would have displaced only a few interns."

Hospital Accreditation. The same Reference Committee considered six resolutions on hospital accreditation and presented the following statement which was adopted by the House:

"Your Reference Committee has reviewed all these resolutions which in principle are similar and apparently reflect a widespread dissatisfaction with the present functioning of the Joint Commission on the Accreditation of Hospitals, possibly from bilateral misunderstandings. Therefore, your Reference Committee recommends that the Speaker of the House of Delegates be requested to appoint a special committee to review the functions of the Joint Commission on the Accreditation of Hospitals to consist of seven members, none of whom shall be members of the Council on Medical Education and Hospitals or the Joint Commission on the Accreditation of Hospitals. This special committee should be instructed to make an independent study or survey and report its findings and recommendations to the House of Delegates at the next annual meeting. All physicians and hospitals are urged to pass on to this special committee any observations or suggestions concerning the functioning of the Joint Commission on the Accreditation of Hospitals."

Polio Vaccine. The House passed three resolutions suggested by the Reference Committee on Hygiene, Public Health and Industrial Health in connection with discussion of the Salk polio vaccine and the introduction of new methods in the treatment or prevention of disease.

The first resolution reaffirmed "confidence in the established methods of announcing new and possibly beneficial methods in the treatment and prevention of disease" and also reaffirmed "the need for the presentation of reports on medical research before established scientific groups, allowing free discussion and criticism, and the publication of such reports, including methods employed and data acquired on which the results and conclusions are based, in recognized scientific publications."

The second resolution included the following policy statements:

> "*Resolved*, That the American Medical Association go on record as disapproving the purchase and distribution of the Salk polio vaccine by any agency of the Federal Government except for those unable to procure it for themselves and that such necessary Federal funds therefor be allocated to the various proper state agencies for such purpose; and be it further
>
> "*Resolved*, That the American Medical Association urge the Congress of the United States to allow the Salk polio vaccine to be produced, distributed and administered in accordance with past procedures on any new drug or vaccine."

The third resolution commended Dr. Salk as follows:

> "WHEREAS, The physicians of this country recognize the great scientific achievement in isolating and perfecting a vaccine for the prevention of poliomyelitis by Dr. Jonas Salk; and
>
> "WHEREAS, This vaccine is now being used to prevent poliomyelitis among many of our children; therefore be it
>
> "*Resolved*, That the House of Delegates express its profound gratitude to Dr. Salk and its admiration for his monumental contribution to medical science."

Miscellaneous Actions. Among a large number of actions on a wide variety of subjects, the House of Delegates also:

Commended the "Medic" television program;

Reaffirmed its previous recommendation that the United States withdraw from the International Labor Organization;

Approved the Headquarters Survey Report, which included the statement that "The only public relations program of any permanent value is the private and public relations of the individual doctor";

Expressed regret that the Hoover Commission saw fit to alter or eliminate some of the recommendations of its Medical Task Force;

Reaffirmed its opposition to extension of the Doctor Draft Law;

Recommended the creation of an AMA Committee on Geriatrics.

The Conference of Presidents and Other Officers of State Medical Associations was held on Sunday preceding the opening session of the AMA's House of Delegates. In attendance were Delegates Hussey and Holden, Secretary Wiprud, and the Assistant Secretary of the Medical Society, Lawrence A. Zupan. Mr. Wiprud is a member of the Conference's Executive Committee. He was also Chairman of the Program Committee for the Medical Society Executives Conference, which held an all-afternoon session, June 4, at the Ritz-Carlton.

Respectfully submitted,
HUGH H. HUSSEY, M.D., *Delegate*
RAYMOND T. HOLDEN, M.D., *Delegate*
THEODORE WIPRUD, *Secretary*

ANNUAL REPORT ON ADMINISTRATIVE SERVICES OF MEDICAL SERVICE*

We have had a busy and productive year. As Medical Service grows, in numbers of physicians, subscribers enrolled, and the types of services for which the Plan provides payment, there is a corresponding increase in billing and accounting services, and claims to be processed and paid. We are constantly endeavoring to simplify our administrative processes in order to absorb a new volume of work without a corresponding increase in operating costs. Our staff is geared to handle the administrative problems of publicizing, selling, auditing, billing, and paying claims with efficiency and economy. Furthermore, the personnel involved in these processes are dedicated to this work. They believe in it and recognize it as a powerful force in the economy of their own community.

ENROLLMENT

At the end of 1954, there were 461,095 participants enrolled, a net gain of 57,061 participants for the year. The success of our enrollment program thus far has created a diminishing pool of potential subscribers, so that it becomes increasingly more difficult to maintain the same enrollment pace as in previous years. However, our enrollment gain in 1954 exceeds the net enrollment gain for any year since 1951, and comes at a time when an expression of public confidence in our program is particularly gratifying. In the face of continuing Federal activity and an increasing concentration of commercial insurance interest in the health insurance field, our market has become increasingly competitive during the past two years. Despite intense efforts, we have lost some groups and we are threatened with the loss of additional groups. We do know, however, that Medical Service can provide a type of health service which no other organization can offer, and that continued public understanding of the value of this program will do much to solidify our position as the dominant prepayment medical care plan in this community.

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* Presented at the Annual Meeting of Participating Physicians of Medical Service of the District of Columbia, April 26, 1955.

For the first time, we have used public media for advertising to a large extent in acquainting the public with the advantages of Medical Service in the prepayment medical care field. This activity has done much to identify Medical Service as a Blue Shield Plan in the public mind, and create public confidence in the medical care program which you sponsor and endorse. However, we have not relaxed in following our customary methods of developing new enrollment. Our enrollment representatives established 351 new groups during the year, and arranged for the enrollment of new subscribers in established groups by making 4,776 personal calls.

Last year, in making this report, I pointed out that efforts to acquaint the public with the unique features of Medical Service of D.C., and the continued demonstration of the manner in which physician participation provides benefits which could not be obtained under any other program, might be expected to reduce the number of cancellations in 1954 and help to combat increased efforts on the part of commercial companies to obtain control of the prepayment health service field. As it turned out, the ratio of cancellations to exposure months remained about the same. However, the more recent impact of the advertising program indicates that cancellations are being substantially reduced while enrollment continues to increase. In 1953 Medical Service ranked eighteenth in total enrollment among 76 approved Blue Shield Plans, most of which operate on a statewide basis. In 1954, Medical Service forged up to seventeenth place among 77 Plans and ended the year with a total enrollment of 461,095 participants. At this moment, more than 480,000 participants are enrolled, and we have no question but that Medical Service will reach the half-million mark in the very near future. The additional enrollment in 1954 was, of course, largely responsible for the additional $450,000 paid out for physicians' services in that year. During the year, our Claims Department processed 439 claims every working day in addition to handling an average of 229 calls either by phone or in person which were related to claims problems. We realize that the handling of privileged and confidential information of this type is a deliciate and serious responsibility, but our personnel are especially qualified and trained for this work and, considering the volume and variety of situations with which they are faced from day to day, I am confident that they discharge their duties with a high degree of satisfaction.

OPERATING COSTS

I am sure that every doctor participating in Medical Service is anxious to know that his Plan is being administered efficiently and economically. It is certainly the desire of the administration to conserve the funds of Medical Service and the record once again indicates that we are making a successful effort in this direction. In 1953, 8.9 per cent of the Plan's income was utilized for operating expenses; in 1954, 9.1 per cent was used for this purpose. The average for all Blue Shield Plans in 1954 was 11.1 per cent. During 1954, the cost of the advertising program was absorbed in the Plan's operating expense, which reflected an over-all increase of .2 per cent over the preceding year's figure. Great economies in operation are provided by our working agreement with Group Hospitalization, Inc., which permits employees of Group Hospitalization to process a Group Hospitalization and Medical Service account simultaneously in many instances, and to share the expense of the facilities, which would be more costly for both Plans if borne separately. There are, however, certain aspects of the administration of Medical Service which cannot be conducted by lay personnel, and I am grateful for this opportunity to emphasize the value of the services rendered by physicians who have devoted many hours to the consideration of claims, medico-legal problems, fees, and those aspects of the Plan's operation which are dependent upon medical understanding. This concentration of physician interest in the affairs of

PHYSICIANS WANTED FOR ARMY DISPENSARY

Civilian physicians are wanted in the United States Army Dispensary at Fort Myer, Arlington 11, Virginia. Physicians who are interested can arrange for an interview by calling Mrs. McWhorter, Jackson 2-3000, Extension 2112 or 2119.

Medical Service makes possible the distinction between our program and the dollar reimbursement program of a commercial insurance company. Additional recognition must be given to the Participating Physicians themselves for their coöperation in helping to keep operating expenses at a minimum.

PARTICIPATING PHYSICIANS

At the present time, there are 1,745 Participating Physicians in Medical Service. Undoubtedly, a number of physicians arranged to participate in the Plan because of the in-hospital medical care program, and they may wonder when that program will become a practical reality. At the present time, the program has been in operation for a year, and we have sold 1,595 contracts covering 3,782 persons as of March 31, 1955. While our experience with this program has been limited, it has been satisfactory from a financial viewpoint, and it is to be hoped that it can be offered to a greater number of potential subscribers in the near future.

The Blue Shield Plan in this community reflects the thinking of those who serve on its Board of Trustees, on its various committees, and are in attendance at this meeting. It is indeed a physician's plan for the prepayment of medical expense, and one in which the physician himself has a large measure of control. Under the circumstances, it is to be expected that Participating and Coöperating Physicians will support Medical Service wholeheartedly, and it is gratifying to find that such is the case. The fine support which Participating and Coöperating Physicians have given Medical Service in the past has contributed greatly to the smoothness and efficiency of the Plan's operation. The coöperation of physicians in distributing literature which will inform their patients about Blue Cross and Blue Shield Coverage has been a real asset to our enrollment department. The response of physicians to our suggestion that they hang an identifying plaque in their office has been little short of amazing. One thousand Participating and Coöperating Physicians have personally requested plaques for display in their offices to illustrate their status as a Participating or Coöperating Physician in Washington's Blue Shield Plan. It is to be hoped that each physician in hanging the plaque on his wall will do so with some pride of ownership, not just in the plaque itself, but in the Plan which it represents. This is the physician's program, and its benefits accrue to physician and patient alike.

As the scope of our program grows, so too will the machinery and ingenuity necessary to cope with it. Such growth is inevitable in these times, and what might seem like insurmountable road blocks to the prepayment of increasingly costly medical care are oftentimes surmounted by a growing recognition on the part of employers that such care is in the best interests of their employees. For that reason, more employers are contributing to the cost of prepayment for services which many of their employees would not receive or pay for if the cost had to be met entirely out of their own pockets. In 1954, 43 new groups were established in which the employer contributed to the cost of coverage, and 48 groups changed over from full payment by the individual to contribution by the employer, which gives a total of 91 additional groups operating on an employer-contribution basis. There is a growing desire for protection against unknown medical expense, and it is evident that it will be satisfied by one source or another. If the doctors of Washington are prepared to endorse a program providing more benefits to more people, I can assure you that the administration is prepared to handle the details of such a program.

GEORGE B. MCGOVERN, *Manager*

WHAT IS LEGITIMATE MEDICAL NEWS?*

From the Newspaper's Viewpoint

FRANK CAREY

Science Writer, Associated Press

NATE S. HASELTINE

Science Writer, The Washington Post and Times Herald

JOHN M. McKELWAY

Medical Reporter, The Evening Star, Washington

MR. CAREY: It's a real pleasure to participate in a symposium devoted to our subject of tonight, "Legitimate Medical News." Because the mere fact that such a discussion can be held—with doctors and reporters, in effect, sitting around a table to attempt to clarify and iron out mutual problems—is a mark of progress in the field of relations between medicine and the press, although I venture to guess you'll see before the night is over that there still is room for plenty of additional progress.

It's not so long ago that such a meeting, particularly in front of an audience of doctors, would have been well nigh impossible. I daresay there are some people in the audience who can recall the time when most scientists, especially those in the medical field, would almost rather face a firing squad than talk to a reporter, let alone take time out from their practices to listen to reporters make public speeches. And reporters, and their newspapers, on their part, some 20 to 25 years ago were, for the most part, just as bad.

Just as scientists and medical doctors looked upon newsmen as rather shady, inaccurate characters who couldn't be trusted as far as you could toss an X-ray machine, so too did reporters and their newspapers have some bizarre ideas about scientists. They looked upon them as queer birds, caricatured them as absent-minded professors who lived in ivory towers stroking long grey beards. And, many of the stories about science and medicine were of the screwball variety—kidding the language and methods of scientists, rather than making a sincere effort to understand and interpret them.

But the scientists had themselves to blame for a lot of this unhappy situation—unhappy because it was depriving the general public of something that was intensely interesting, educational, and even exciting, to say nothing of being potentially beneficial from a public health standpoint. Many scientists did maintain an ivory tower existence, having no patience even with the occasional newsman who had a legitimate interest in the doings of science and who asked sincere, even though somewhat faltering, questions.

But newspapers gradually learned that science could be handled on a day-by-day basis and treated as straight news, just like any other activity from politics to religion. And more and more scientists began to realize that more and more reporters could write science news accurately. The rise of an organization known as the National Association of Science Writers has been a key factor in this change.

Yes, much progress has been made during the past 25 years or so, but science, including medicine, and the press still are not exactly lovey-dovey, nor do they constitute a mutual admiration society. There are exceptions, of course. Some doctors and some reporters see completely eye-to-eye on how medical news should be handled, but others don't, and there are enough squabbles and misunderstandings to make meetings such as this one take on real, constructive importance.

Before going any further, let's have a definition of what we are discussing tonight. What is meant by "legitimate medical news"?

My own definition is this: "Legitimate medical news" is any news of medicine or health based upon a scientific speech, written report, or interview with a responsible authority in the medical field, or an allied profession, such as the pharmaceutical field. I can speak only for the Associated Press—and I say "only" advisedly, because we have 1,700 newspapers in the United States alone—but that's the only kind of medical news we service to newspapers on our wires.

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* The six papers published herewith were presented at a Medical Press Conference before the Medical Society of the District of Columbia, under the sponsorship of its Committee on Public Information, April 13, 1955.

This isn't to say that every time a doctor makes a speech, writes a technical paper, or gives an interview we write a story about it. Far from it. In order to get on the AP wire, the story must either (1) have some news in it, or (2) have some interesting readable development concerning a story which previously has been told by the same doctor or someone else.

A doctor may have something that is very interesting to himself because he has worked long and hard on it, and it may be of interest to some of his colleagues. But, to be brutally frank, our first responsibility is not to the doctor, who can get his message to his colleagues through a technical journal, but to the general reader. We at least think we know what interests him, based on long experience in noting the types of stories that appeal to editors. And, after all, they must know what interests their readers, or they wouldn't remain in business long.

Therefore, much as we might like a doctor as an individual, his story gets relegated to the spike if we don't think it will interest our readers.

Also, we pay no attention to the occasional doctor who trys to tell us the points he thinks ought to go into the story, or where, in his words, "the emphasis" should go. We're sure he would tell us in no uncertain terms where to go if we attempted to tell him how much cortisone to give a certain arthritic patient. Likewise we are prepared to tell him to go sell his papers if he attempts to tell us how to write a news story.

I was interested, and somewhat puzzled, by a statement made in your Medical Society announcement of tonight's meeting. Quoting Dr. McLendon, it said: "We feel that the public has a primary stake in accurate medical reporting." I'm in total agreement so far. But the statement added: "However, the doctors too are deeply concerned because of its impact (i.e., medical reporting) on their patients. Much harm can result if discrimination is not shown on the part of newspapers as to what is proper for publication. Premature announcements, overoptimistic claims and carelessness as to facts can become serious indeed where patients are concerned."

I'm puzzled by that phrasing, "if discrimination is not shown on the part of the newspapers as to what is proper for publication." "Proper" by whose definition, I ask, the newspapers' or the doctors'? (And I might add that the previously mentioned statement says the doctors don't agree on what, to them, constitutes "legitimate" medical news.)

Speaking again only for the Associated Press, I've told you what we consider to be "legitimate" and, therefore, "proper" medical news, that is, news that comes from a responsible medical source.

When we write about something in the medical field, we are not giving the opinions of the Associated Press. We are quoting a doctor. And, if he gives his views at a legitimate medical meeting, in a legitimate scientific publication—or, in the case of a doctor being interviewed, if he is at least reasonably well known—we can only assume that his views are proper for publication, regardless of whether one happens to agree with them.

We don't work in laboratories or operating rooms ourselves; therefore we are in no position to censor a doctor's statements as to their validity except in instances where they might run contrary to something we know to have been previously published. In that event, we can present the contrary viewpoint.

So, if so-called "premature announcements" and "overoptimistic claims" should appear in medical news stories of the Associated Press, they are not our responsibility. They are the responsibility of the one who makes them. Now, if a doctor considers some news story to be one that contains a "premature" announcement, he has a responsibility to make his views clear, provided he can back them up.

It doesn't do any good to stew about such things at private medical meetings. If you think a researcher is cock-eyed and has made some announcement prematurely, and you have good reason to challenge him, call the same newspaper that has published the story. I'm sure you'll find the editor happy to consider running a statement under your name.

And, if a patient shows you some clipping from a newspaper or magazine article, don't just dismiss it willy-nilly with the statement, "That's just a lot of newspaper talk." Look into the thing. Find out the source of the reported information and check it with other authorities if you are not satisfied. It might well be something that you missed in a medical journal which you didn't have time to read.

For, if you just deride it to your patients—and then it turns out to be something really good which you could have used on such patients earlier—you'll just drop a notch in their estimation. On the other hand, if it turns out to be a false alarm, you will have gained stature with your patient for having taken the trouble to investigate.

I fully agree with the statement in your announcement that "carelessness as to facts can become serious indeed where our patients are concerned." And, if a wire service or a newspaper incorrectly quotes a source—and therefore gives the wrong impression—the wire service or the newspaper is then the guilty party, and you have every right to lambaste them. But again, I say, if something is incorrect, make sure it's not the source himself before you start criticizing the newspapers to your patients.

On this matter of accuracy, again I can speak only for the Associated Press. But we are a large organization, open to sharpshooting by member newspapers, millions of readers—and thousands of doctors—all over the country and the world. So, our needs for accuracy on medical news, as with other facets of the news, are very high.

Certainly we are open to honest mistakes, but so is a doctor in his work. The difference is, our errors are open for all to see and condemn, just like the left fielder who muffs the long ball with the bases loaded, whereas the human errors of a doctor in diagnosis, and worse, are not always brought out into the open.

I hate to make this personal, but I've spent up to an hour writing and rewriting a single paragraph lest it give an erroneous impression, and perhaps raise false hope on such a subject as cancer.

The charge is still made today by some doctors that newspapers by and large are interested only in the "sensational." Perhaps specific instances can be pointed out, but my own impression is that modern newspapers realize that a medical story need not promise a cure a week from Tuesday in order to be interesting to the public. I could count on the fingers of my hands the stories I have written in the past 15 years reporting or promising "cures" for anything.

Frequently, we use stories on basic research—experiments which may never jell into anything practical, but which illustrate the efforts, however small individually, which science is making toward human betterment. The only criterion for the use of such stories is that they be interesting and readable.

Some doctors feel that a newspaper is no place to discuss medical things, that a doctor can tell his patients all they need to know.

Newspapers aren't in the business of trying to practice medicine, thus interfering with the field of the doctors. But they know that medicine is news, that people are interested in their health and their ailments and like to read and talk about them. The newspapers also know that in a democracy people have a right to all the information they can get on every possible subject, be it politics or pellagra, labor strife or leukemia, tornadoes or tonsillitis. And, since people have this right to know, the newspapers have the obligation to try as hard as they can to give them the information.

Another point: Some doctors contend that a physician has enough to do tending his patients without feeling any obligation to help generate or encourage the publication of medical news. But such doctors should remember this: Advances in medical research are depending more and more on public support, either through direct contributions or tax-supported grants-in-aid programs. The day of big support by wealthy private individuals and organizations is passing.

Thus, to be a better and better doctor, you need the advantages of new and better research efforts, and support for these must come largely from the public. And a public that is well informed about medicine and its possibilities is much more apt to contribute than one that is not.

There's still another point. While it is true that a doctor may be able to tell his patient all he needs to know while the patient is under his direct care, there are periods when people aren't under such direct care, and when the principles of preventive medicine are important. A newspaper or magazine, quoting responsible authorities, can alert people to the danger signals of such ailments as cancer and diabetes, perhaps bringing such people to a doctor sooner than they might otherwise have come.

One final thing, concerning accuracy. Doctors can help reporters be more accurate by such simple steps as making full copies of scientific papers available to them in advance of a medical meeting when reporters ask for them. You may be a fine orator, but your key slides and charts sometimes throw us for a loss in a smoke-filled meeting hall, so both you and the reporter are far better protected from the accuracy standpoint if you give him something in black and white. It only takes an extra carbon in your secretary's typewriter.

And, if you ever have anything to do with running the press room at a medical meeting, make your first rule this: Get all the copies of program papers you can. Some doctors in charge of press rooms think they've done a lot if they prepare detailed biographies of speakers. Reporters aren't necessarily interested in who the man is; they're interested in what he has to say. The little guy with only one degree may well make a better story than the big wheel with a string of degrees and honors.

And, please don't line up men to be interviewed, like people waiting for a bus, just because they happen to be prominent. Wait until reporters ask for a particular man.

In summary, this subject of "legitimate medical news" constitutes a two-way street, with obligations falling upon both the doctor and the newsman, all in the interests of the general public they both serve.

If I have offered some points of criticism, the intention has been constructive. And I find it difficult to be critical, even to this small degree, to a profession which has produced insulin, penicillin, and a polio vaccine.

We in the newspaper field have our rascals and irresponsibles, just as you have them in the medical field, and just as they exist in every field of human endeavor. But my hope, and strong belief, is that they don't last long after they are found out, in the same way that responsible medical organizations seek to weed out their wrong-doers.

In journalism, we don't have any oath to Hippocrates as such, but our ethics are just as high as those of medicine, and, by Hippocrates, we intend to keep them that way.

MR. HASELTINE: What is legitimate medical news? Obviously, there are two definitions; the medical writer for a newspaper has his idea and the physician has another. I will say this: The science writer covering the medical beat who never has a run-in with the physicians isn't a good newspaperman. He's either afraid to write the medical news, or he's a Nud-Nick completely sold on the idea that doctors can do no wrong.

How can a newspaperman be conscientious and true to his readers if he writes only what the doctors want him to write? He can't. Should he shut his eyes, and lock up his typewriter, when specialists in the field complain that doctors lean too heavily on the wonder drugs? That they aren't stern enough with diabetics? That they don't spend enough time with a patient? That they treat a patient's parts, rather than the patient as a whole? Yet the minute such reportings appear in print, some doctor gets on the 'phone and bends the reporter's ear for a half-hour or more about how he can't prescribe wonder drugs after that article; or what can he tell the patient he is forced to put on an insulin régime; or he's complaining that he has to treat his patients on an assembly-line technic, he has so many. Or, for the doctor who does treat a patient's parts, he'll 'phone that that's his job, he's no psychiatrist.

Doctors are always complaining about the necessity of speed to get a story in the paper. I tell you that if a doctor took 24 hours to digest a news story before he called in to complain about it, I'd have far more time developing other medical news stories. In one day, the story which at first seemed so offensive would show up as a valuable, constructive story, and they wouldn't be calling me. Few doctors —or few anybody for that matter—call up a reporter to commend him for his writings. They call to complain.

I have some other gripes about physicians. They think a reporter has no right to report to the public that some doctor somewhere else has tried a drug for something and found it good. They seem to think they should be the first one to tell the patient that something has been developed for his complaint.

Frankly, if the public had to wait for the doctors to find out in their own medical journals about the advances in medicine the public would have to bear its ills about five years longer before getting the relief the newspapers tell them has been made available.

Certainly, in the course of reporting medicine we medical writers do give the public false hopes. But we don't do it intentionally. We are misled by reports of the doctors. For those doctors who complain that the newspapers are always reporting on new drugs, new treatments, which are later shown to be ineffective, let me tell you that we are only following the doctors in this regard. The physicians jump into medical print when they think they have found something good; they are awfully slow to acknowledge by follow-up reports that they were wrong.

I think you'll find that newspapers are much faster to acknowledge mistakes than physicians. And, contrary to what you may believe, we usually give the same prominence to corrections that we gave to the original false report.

As a result, fake cures which might otherwise flourish for years are found wanting and discarded long before they would die an ordinary death by physician recognition. I could mention specifically the fish eye protein injections to clear eyes clouded by cataracts. Who was responsible for that story in the beginning? It was printed in the publication *Science*, weekly technical publication of the American Association for the Advancement of Science. Such publications are supposed to have a medical screening board. So don't blame the medical writers for picking it up. Let me tell you this: The newspapers printed stories questioning the treatment long before the scientific publications did, probably because the newspapers are able to get ideas into print so much faster.

This brings me to a strong point I'd like to make tonight. Don't expect the newspapers to be your policing agent. You've got to clean your own house. We can often spot, and ignore, the obvious phonies. But until you get your own house clean, you can expect us, the newspapers, to sometimes give credence to quacks and questionable remedies. Particularly when these same quacks, these same remedies, are given the endorsement of your publications.

The same thing goes for your scientific meetings. Everyone who ever makes a complaint against me for what I have written threatens to have me barred from your meetings. Yet, when the questioned story is investigated, it invariably is found that there was nothing wrong with the reporting, and if there was any mistake it was a mistake of the reporting physician. Usually, no mistake at all has been made. The reporting was correct, and the physician who spoke is himself satisfied with its newspaper interpretation. It was just that he said something which he believed but which may have been harmful to the physician who complained.

I can't subscribe to the expressed opinion of a well-known science writer that the trouble with doctors is that each one thinks he is God. But I do believe that far too many physicians believe that they have Godlike qualities.

Doctors are as human as newspaper reporters, but they aren't the realists that reporters are. Until they become realists—and some of them already are—there will always be an unbridged cut between them.

Maybe that is for the best.

MR. MCKELWAY: I think it best—here at the start—to explain I'm a freshman in medical school as far as medical reporting goes. On numerous occasions I've been forced to ask Mr. Haseltine what Dr. So-and-so was saying about the pancreas. And Mr. Carey has been quite helpful in explaining—right in the middle of medical meetings—the importance of arteriovenous fistulas.

So I ask that any statements I make on the medical profession here tonight not be repeated outside this building. But if you must repeat them, I'm asking that my name not be used. If you do use it, please spell it correctly.

On this question of what is legitimate medical news—I can cross that off quickly by stating my feelings on just what constitutes illegitimate medical news. Illegitimate medical news is that which appears in *The Washington Post and Times Herald* before it appears in *The Evening Star*. Incidentally, I'm willing to be quoted on this.

With that taken care of, I'd like to pass to my specific subject, which is use of a doctor's name in a daily newspaper. I say newspaper—we just can't be responsible for *Pic*, *Quick*, *See* or the *Reader's Digest*.

Apparently, the only doctor in town who doesn't mind having his name used is Dr. A. Magruder MacDonald. He's in there every day, some place, but I don't think he's ever been in trouble with the Medical Society. The reason must be that patients don't rush to Dr. MacDonald when they see his name.

I've often wondered if doctors do pick up patients when their names are printed. I hazard a guess they don't—maybe a few phone calls from a crackpot saying the doctor is all wet or a phone call from a colleague saying either the doctor or the reporter is all wet—but I doubt that patients flock to your office after reading your name.

Yet, this is certainly one reason why doctors don't like to see another doctor's name printed. Recently a "series" was completed in New York City in which a number of doctors, who had received publicity in some form, reported on the number of patients they had received because of the publicity. They were disappointed. Not a soul showed up at their offices because of the publicity. Their own patients, however, were pleased they had seen their doctor's name and were rather proud they had picked such a man.

What doctors do get after their names are printed is the remark from another doctor: "I saw your ad in the paper." While it might be very funny at the time it's spoken, it is, nevertheless, tinged with sarcasm and—at least I suspect—it can be taken as a warning to soft-pedal the publicity in the future. Newspapers are not as dumb as they appear. We can spot publicity seekers pretty well. Publicity-seeking doctors stick out like a sore thumb.

Of course, the reluctance to have your name used could stem from your fear that reporters will not be accurate in their reporting. Actually, this doesn't really happen too often. Most of the mistakes usually appear in the actual spelling of a doctor's name. For example, no one can correctly spell the first name of Dr. Overholser, which is Winfred. For some unknown reason, it always comes up Winifred. Dr. Overholser is somewhat resigned to this.

I'm not saying we want your name when Senator Blowhard is hospitalized with a suspected case of voice-box failure. We like to know what he's in the hospital for, his condition, and whether he's a sick Democrat or Republican. But here I don't think your name is necessary and I'm sure Hippocrates would agree. However, if you install an artificial liver in Senator Blowhard or anyone else, we want your name and the names of everyone who helped you.

Why?

For one thing, a name lends an air of authenticity to a newspaper story; it gives the material credence, a stamp of accuracy. A name means the reporter more than likely is not making the whole thing up. The name is of interest not only to the general public but to other doctors as well. In short, the name means just "who said so."

The name or names eventually come out anyway sooner or later. But reporters hate to wait and want that name as soon as the last stitch is closed.

Perhaps we give too much credit to Dr. X when Dr. Y, who has remained quite silent, does the better job. If Dr. Y would only speak up, it would help to evaluate medical stories much better, in the sense that Dr. X is not the only guy who is installing artificial livers in this town.

It will probably take a mild revolution within the medical profession before doctors ask reporters to use their names. We'd like to sow the seeds of that revolution here tonight. We are also mindful the newspaper profession could use a few revolutions itself.

I've always felt it's misunderstanding, more than anything else, that separates the two professions and causes most of the trouble.

Maybe we can come a little closer tonight.

WHAT IS LEGITIMATE MEDICAL NEWS?

From the Medical Viewpoint

JOHN L. BACH

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Mr. Bach: Today's panel question, "What Is Legitimate Medical News?" is a tricky one.

For clarification, let us delete the word "legitimate" and first answer the question, "What is medical news?"

In the judgment of an editor, medical science news may be classified as "technical" and "specialized," but actually it is no different from any other branch of news, such as sports, financial, fashion, food, or radio and television. All of these news departments might be considered more or less specialized, too, the same as medicine. Therefore medical news generally can be defined the same as any other type of news, i.e., anything timely; that which has the greatest interest for the greatest number of people.

Now when you insert the word "legitimate" and attempt to answer the question, "What is legitimate medical news?" you are getting into deeper water. A complexity immediately arises which sets up an interpretation barrier between the science writer and the physician.

One might turn the question around to ask: "When is medical news legitimate?" To the physician working on a new and revolutionary experiment, it may take a long time before he is ready to make any announcement. A writer's inquiry upsets him.

The researcher feels that his material is not ready for publication because he is not satisfied at that point with the progress of his labors. Such a situation presents conflicts.

On the other hand, a physician may consider material legitimate and the reporter may consider it legitimate, but the local medical society might consider it not legitimate under the Principles of Medical Ethics. Such a situation raises almost insurmountable conflicts.

Again, a writer may consider a story perfectly legitimate, but the doctor holds to a strong contention that it is premature and not legitimate. There again conflicts arise.

If material emanates from a medical meeting or first appears in a medical publication, it may be considered, for all practical purposes, legitimate medical news. Even then you would find disagreement among doctors on this point.

No dependable research or study has ever been made to help us define so-called legitimate medical news.

One important point stands out from all this: The physician may define what is legitimate medical news, but the actual application or motivation behind any story rests almost solely with the writer. Since no two human beings are alike, it's hardly possible that all writers will agree on what is legitimate medical news and what is not.

Mr. Steven M. Spencer, popular medical editor of *The Saturday Evening Post*, discussed the "legitimate" phase of medical reporting long ago when he penned this classic:

"We know that very few contributions represent immortal and immutable medical truths. But that does not mean they are not worthwhile contributions, capable of giving valuable aid until something better comes along. Sulfanilamide was not without its untoward side effects, and ultimately it was largely replaced by other, better chemotherapeutics. Yet in the meantime it saved many lives and prevented much suffering. Would those who charge the press with being 'premature' (illegitimate) in its reports have denied the public information about sulfanilamide simply because it had some drawbacks?

"No informed person expects science to move forward at a steady, unchanging pace. It is inevitable that medicine may occasionally take three steps upward and then find it must back down one step to secure a firmer foothold—but it made a net gain of two steps. Surely the public is entitled to witness this progress, no matter how irregular and interrupted it may be."

I don't believe our problem here today is to find out how "legitimate" or "illegitimate" medical news really is, but rather to explore the channels of misunderstanding which exist between writers and the medical profession.

First, let us consider the problem from the standpoint of any newspaper or magazine writer, not necessarily the qualified and experienced science writer.

A writer is given a medical assignment and turns to the physician or his local society for help. Most writers bristle with anger when they are given, instead of facts, a long discourse on why they should not write a particular story. They feel that because of their training and experience they are in a better position than the physician to determine what is news and what is not news; when to write a story and when not to write a story. In this regard, they are probably right, but they are not in a position to determine what is "legitimate" medical news. In this regard, the physician knows best.

And that is the basic controversial line of demarcation between the doctor and the science writer in the matter of determining what "makes" a medical story.

From this point on, the eventual solving of the problem rests with continued education of the writer, better understanding between the writer and the physician, and the application of common sense between both parties.

Any medical story affects the investigator, the writer, the medical profession, the anxious patient, and the news reader—each in a different way.

The investigator always feels he needs more time before he can announce his discovery or work; the writer wants it immediately, then, and with "a nose for a good story" suffers from the temptation to play up undeniable but unlikely possibilities; the medical profession, hardened by bitterly disappointing flashes-in-the-pan, eagerly awaits confirmation and application of the new facts; the anxious patient and his family experience the anguish of uncertainty, and the news reader may or may not enhance his stored knowledge regarding medicine.

With such a tense and complicated background to the release of medical news both the writer and the doctor who becomes associated with an important announcement are faced with certain moral obligations.

An admonished writer who quickly stands behind the time-worn phrase, "I don't make the news, I just report the facts," is not carrying the responsibility which goes with his job. The writer of medical news has a greater responsibility than a writer, say, of financial news or fashions, because his stories have a direct bearing on the physical well-being of his readers. Human health is determined more by the vagaries of words than by microbes.

A writer of medical news has a definite responsibility, not only to the newspaper and magazine he works for, but to readers as well. Just because a doctor, investigator, or anyone for that matter, is eager to give the writer information is no bona fide assurance that the facts are correct or in the best interest of the public. Has the writer asked himself: "What are behind the facts as I get them?"

The "I just report the facts" pitch is no excuse for a medical story that can't possibly stand up. The science writer—usually the inexperienced—who hides behind such verbal nonsense ought to climb out of his cocoon and look around. The public—his readers—are interested in facts, of course, but they do not want to be misled nor do they want to wade through a story which they later find is stacked with stale material.

Today's writer of medical news must learn to realize that the words he uses in his story can be full of traps, distorting scientific evaluation on the part of the reader and leading to pain and misery beyond all sense and reason. This is especially true concerning stories dealing with cancer drugs and treatment.

Physicians and medical science writers are working together more and more and on a better-understanding level. This is evidenced by the conference being held here today and by similar conferences sponsored by other medical societies throughout the country. These projects are most worthwhile because they help to acquaint each with the problems of the other.

Doctors and medical writers might take a lesson from the acrobats in a circus, where one is always giving the other a helping hand. Through mutual understanding and working together authentic medical facts can be communicated to a science-hungry people, substituting knowledge for ignorance.

This approach, gained from seeing what has been accomplished in the past, gives me an optimistic outlook for the future. In brief, I see the mug of rum as half full while others tend to see the same mug as half empty.

Dr. Ramsey: We were requested to leave our kid gloves off tonight and to lay bare our thoughts, and so I have recorded a few observations.

"Congress shall make no law . . . abridging the freedom of speech, or of the press." Thus reads part of the first Amendment to the Constitution of the United States.

What a distortion of the meaning of this amendment is now being peddled to the people by certain editors and publishers under the title "freedom of information," which they paraphrase as "the right to know." The Amendment puts a restriction on Congress alone and makes no effort whatever to force any human being to release information.

As I read it, the Constitution contains no guarantees stipulating "freedom of information" or of "the right to know," nor are these necessarily to be listed among "certain unalienable rights" mentioned in the Declaration of Independence. The press has a vested interest in information, and the more information it can obtain the more it can sell.

On February 11 of last year we heard the city prosecutor of Maryland say that a completely fair trial for many accused was made more difficult if not impossible by press stories before and during the trial—of what freedom has the press deprived the accused?

If the wife of a prominent news writer were suffering from a "delicate female complaint," his colleagues might suppress the story. But would the same colleagues hesitate to invade the privacy of someone else?

Now this is not all bad. The development of our great newspapers and means of communication has brought us to within one day of happenings in most of the world. This is a very great accomplishment and we need it.

However, there is a problem, not capable of exact solution in respect to medical scientific stories.

The Gentlemen of the Fourth Estate are trained to the belief that nothing is better than a news beat. This justifies in their minds the publication of material which they might in good judgment have elected to suppress but for the fear that some other will acquire the information and publish it and thus cause the first to lose his "scoop." Furthermore, it is necessary for the journalist to write, he thinks, from a "lead." What better, then, than to use leads that are dramatic, sensational, or controversial to attract reader attention? Unfortunately, the reading public is given the idea that the lead or the headline is the important or undistorted part of the story.

The continuous flow of premature or half-baked medical stories in the press of the Nation continues to buoy up false hopes in invalids for whom hope is a tragic abortion—and they pour out their substance pursuing many a will-o'-the-wisp they saw in print. Every physician is painfully aware of these truths. In reporting, ability is not always matched by responsibility. It is not sufficient for the reporter to alibi that a doctor said this.

The Gentlemen of the Press, however, are not deserving of all the jagged barbs to be found in observations on this subject.

The obvious greed for publicity has become quite evident in some hospitals, clinics, medical schools, national foundations, and to some extent in medical organizations.

The readiness of some of these groups to exploit the scientific activities of their physicians in order to try to gain a place in the sun is at times little short of scandalous. Every group vies for public approbation and the extent to which some of them will go at this time deserves serious consideration. When a medical school can employ a full-time press staff to push its physicians into the public eye, one cannot be too critical of the press reporter to whom their stuff is fed. This exploitation is at times benevolently supported by the attitude of the physician or physicians concerned.

We cannot delude ourselves into the belief that all of these stories will really benefit the public. While the public may eagerly grasp at such stories, whether well-balanced or distorted, let us acknowledge that only a relatively small proportion of them could be construed in the public interest.

What is legitimate? First of all, organizational news, where the medical organization is doing something worthwhile, needs to be very well publicized.

As to scientific stories, in this realm will be found our principal disagreement with the press. The press wants news—and recent scientific studies and advances are usually not solid when first it desires to report them. By the time their merit has jelled, the press no longer wants them. When quizzed by patients about medical news reports, I usually say, "I don't go to the *Reader's Digest* for my scientific information."

The definition of news will probably forever perpetuate a disagreement between physicians and the press.

There is one fact, Mr. Bach, of which you may not be aware. Most Washington newspapers have health and medical reporters. When I had official news to release, I dealt only through them. We refused to deal with leg-men and sob-sisters with no scientific background. This has promoted excellent relationships here, and I believe there is mutual respect between medical and press men here in Washington.

Dr. Walsh: Since I found myself to be listed as the last speaker on this program, I did not prepare a script. I felt, rather, that I could better serve my purpose if I made my remarks from what has gone before, and to tell you what I personally believe about this subject.

You have heard the men of the Fourth Estate say that they have an obligation to bring information to their readers, and that they feel capable of interpreting medical information, and that when they print something that is incorrect they will retract it.

It is my belief that a well informed public is a healthy public. I would, however, ask the newsmen to recall the statement of Voltaire some 200 years ago in which he said, "In the case of news we should always await the sacrament of confirmation." After all it is their responsibility to the public to see that headlines are not twice the size of events.

My own criterion for legitimate medical news would be based on one major premise: Is this news good for the patient, which is the public? Not, is this news sensational, readable or satisfactory to the editor? If this simple rule is followed, our two professions will always see eye to eye.

I would like to take some exception to the statement that newsmen are capable of interpreting scientific news. We realize that you are trained in this profession, but you are first trained to be newspapermen and eventually evolve into science writers. We find some news even beyond the interpretation of those of us who are trained to practice medicine. I therefore specify, for example, the handling of the stories on the polio vaccine. The newspapers have made many promises which we in the profession sincerely hope we can keep. However, we know little more about the vaccine at this time than what has been printed in the paper. This is not wholly the fault of the press, but is also the fault of the profession in permitting the staging of such an event.

I would like further to mention a recent inaccuracy in a local story concerned with an opening of a group clinic or practice here. There was a statement made in the story which stated that this clinic was opened despite the vigorous opposition of organized medicine to group practice. This statement simply was inaccurate and not based upon fact. The writer was advised of this inaccuracy by the local AMA office and I have yet to see any correction. This is a subtle way of slanting public opinion against organized medicine.

My last point is that I believe we in the profession are more to blame than the press in most cases. We have a code of ethics, which apparently each of us is able individually to interpret. If medical schools, groups, clinics and so on wish to inspire news stories through a third party, usually a public relations man, this seems to be acceptable. If, on the other hand, I, as an individual physician, choose to advertise diagnostic studies available in my office or if I choose to inspire a story in the public press concerning some research in which I may have been involved, I would not fare so well. Yet, our ethical code states that both are governed by these same rules. Therefore, if we ourselves cannot interpret our own regulations on public stories, how can we be so hard on these gentlemen of the press? I stand only for a uniform policy on the part of both the profession and the press, a feeling that the public should be benefited by any stories, and an avoidance of sensationalism and fear psychology in newspaper and magazine stories.

RECOMMENDATION ON USE OF ANTI-POLIOMYELITIS VACCINE

In a letter addressed to the membership of the Medical Society as of June 30, Dr. Preston A. McLendon, retiring President of the Society, and Dr. George Maksim, Chairman of its Public Health Committee, stated that the many controversial statements regarding the use of the Salk vaccine have led to utter confusion on the part of the private physician as well as the public. The letter states:

"In retrospect we could severely criticize many aspects of the immunization program as sponsored by the National Foundation for Infantile Paralysis and the pitfalls encountered by the U. S. Public Health Service. Foremost of these was the 'build-up' of the efficacy and supply of the vaccine in contrast to the later evaluations, as well as the 'neglect' of the professional orientation through time-honored channels. The method of announcing the discovery of a therapeutic boon, with its impact on public enthusiasm, should not happen again. These incidents we cannot now correct.

"In the light of available data, we recommend that the initiation of poliomyelitis immunization to an individual child, or a group of children, should be postponed to the end of any seasonal outbreak in this community. The possible 'provocative action' of the vaccine places the physician in a precarious medico-legal position. It is suggested that a signed statement be secured releasing the physician from responsibility should it be absolutely necessary to administer the vaccine during the usual polio season. Benefit derived during the 'season' by the initial injection is questionable.

"It is not likely that vaccine will be available until early fall, and until a sufficient supply is available for all, the age groups previously specified should receive priority: (1) 7 to 9 years, (2) 1 to 5 years and pregnant women, and (3) 10 years and over.

Drs. McLendon and Maksim represented the District Medical Society on the Poliomyelitis Advisory Committee to the District of Columbia Department of Public Health.

HOWARD MITCHELL CONDUCTING DOCTORS' SYMPHONY ORCHESTRA

Howard Mitchell, Director of the National Symphony Orchestra, took time out from his regular duties to get the Doctors' Symphony Orchestra off to a good start, May 19. The first rehearsal of the Orchestra was held in the Gallaudet College Chapel. The permanent conductor is Richard Wayne Dirksen.

On the Lighter Side

The annual Pfizer Laboratories Physicians' Golf Tournament for the District and Montgomery County Medical Societies was held at the Kenwood Country Club on July 7, 1955. There were 142 participating and competing physician golfers teeing off in spite of the hot, humid weather.

The "Champ" for the second consecutive year was Dr. William J. Evans with a low gross of 75 for 18 holes. This outstanding golfing achievement not only won first prize for Dr. Evans, but also retired the Pfizer Trophy to the safety of Dr. Evans' private golfing trophy collection.

The second prize of a small replica trophy was awarded to Dr. James E. Fitzgerald for his second low gross of 77.

A colorful sport shirt was awarded to Drs. John E. Everett and Francis Crilley as third prize, for a low gross of 78 each.

Dr. Edward Quayle was awarded the fourth prize, a sport shirt, for his creditable low gross of 79 for the 18.

Net scores were determined by the Calloway scoring system, and the following golfers were given a golfing umbrella for their ability: Drs. Luther Gray and Emmett Patrick Madigan each with a low net of 69. (Gross scores were 81 and 84 respectively.)

Sport shirts were awarded also to the low gross winner on the front 9 holes—Dr. Edward Quayle with a 37, and to the low gross winner of the back nine—Dr. John E. Everett with a 37.

Dr. William Ferguson was awarded a handsome leather belt for the highest single hole, the sixteenth, and Dr. Vincent L. O'Donnell was voted the best potential golfer of the day with a score of 111 for the 18 holes. He also received a sport shirt.

The high gross winner of the tournament was Dr. Henry J. Myers with a 132 score. For this unbeatable performance Dr. Myers received a leather belt.

There were other outstanding golfers who did not win any of the awards, but who did reveal their golfing excellence by getting low single holes of 2. They were as follows: Drs. Leonard Berman, Austin B. Rohrbaugh, Julius J. Radice, B. W. Hogan, Morris Kossow, and Edward A. Palank.

Cocktails were served at 5.30 p.m. and a buffet dinner at 7.30 p.m. Everyone agreed that the tournament was a huge success, and there were loud explanations of how they were going to lower their scores for the 1956 Pfizer Tournament.

Now fellow golfers! A few words about the "Champ." Dr. William J. Evans tried his inexperienced hand at golf for the first time when he was a resident physician at Columbia Hospital, and became so enthused at the prospects of hitting that little white ball that he took a series of 12 golfing lessons from the Congressional Pro, Wiffy Cox, in 1947.

Bill Evans showed a natural aptitude for the game and in 1948 qualified as one of the 16 low-score golfers for the two-man match play championship at the Congressional Country Club. Since then, Dr. Evans has won 3 of the 5 two-man match play championships in which he has participated.

In 1951 at Atlantic City, New Jersey, Bill Evans qualified for the National American Medical Golf Association Tournament, but as he so quaintly put it, "I was lousy! I had a 92 and an 89 for the 36 holes." However, in 1952 at Chicago, Illinois, he was runner-up to the winner with a 76 and a 79 in the NAMGA Tournament, and in 1953 at New York City duplicated this feat with a 151 for the 36 holes.

Bill Evans keeps his drives and puts under control by playing golf twice weekly—unless he has to be in the hospital to deliver a baby. This weekly practice has earned for him in tournaments and championship match play such mementoes as silver platters and cigarette cases, 2 large silver punch bowls, and a few of the regular golfing trophies similar to his latest acquisition from the Pfizer Tournament at Kenwood, where par is 70.

Dr. Evans has lived dangerously on the golf course, yet has been hit by a golf ball only 3 times. That occurred in 1952 when Dr. Evans was a playing guest at the Columbia Country Club. One of those hits was a long drive from the tee by Dr. James P. Kane. The ball clipped Dr. Evans on the knee and temporarily suspended his play. The only comment from Dr. Kane was, "Bill, are you covered by insurance?"

Dr. Evans' best 18 holes has been a professional 67, and his worst 18 holes has been a 102 (I should get that low!) during his short golfing career.

J. Earl Kadan, M.D.

MEDICINE'S UNSOLVED PROBLEM*

ROBERT L. NOVY, M.D.

President of Michigan Medical Service

The American people have had a good taste of voluntary prepayment and what they are saying about it is unmistakable. They like it. The way they have taken to it has already exploded one of the pet early theories, that prepayment is primarily a device for serving the needs of the low-income groups. Everybody wants prepayment. Michigan's Blue Cross and Blue Shield Plans today cover members of the State Bar Association and the Farm Bureau, topbracket auto executives and assembly-line workers, millionaries and dime-store clerks. Nationwide it is estimated that 98 million people have some kind of surgical coverage and more than 100 million are covered for hospital expense.

Government medicine is no longer an imminent threat, but it must be added in the same breath that voluntary prepayment is no longer a defense mechanism. It has become a popular phenomenon on its own, a mighty big American reality, shaped by events in every phase of our lives and felt everywhere. A. L. Kirkpatrick, Manager of the U. S. Chamber of Commerce Insurance Department, reported in the December, 1954, issue of *American Social Security* that "About 900 insurance companies, in addition to all of the other various mechanisms, are now engaged in writing some of the health insurance coverages. The premiums paid for health insurance now exceed $3 billion annually and the assets of the insurers run into many billions of dollars."

Outstrips Automobile Insurance

"We are accustomed," Mr. Kirkpatrick continues, "to think of the automobile industry as an outstanding example of the miracle of modern industrial development. But the growth of health insurance has outstripped the growth of automobile insurance both in volume and premiums, in its rate of growth and in the number and aggregate size of the insurers engaged in writing this protection."

Let me admit that these facts astonish me, even stagger me a little, although I am now in the middle of my thirteenth consecutive year as President of Michigan Medical Service and have seen the membership of the medically controlled plans grow from less than a million to their present 32,000,000.

Looking back to 1942, when the life of Michigan Medical Service hung very much in the balance, and the commercial carriers were waiting for us doctors, in all our innocence, to do the pioneering work in this strange new field, my pride in what has been accomplished is no greater than my astonishment.

"This development of modern health and accident insurance," Mr. Kirkpatrick comments in the same article, "is the outcome of voluntary efforts in the best tradition of the American private enterprise system. It has not resulted from Government sponsorship or compulsion."

The Unsolved Problem

We doctors can be justly proud of the part we have played in this epic achievement. Yet one problem among many stands out in alarming relief. It is the problem of inadequate coverage. We know what inadequate coverage may mean in disappointment to the patient, in possible hardship, the worse because unexpected, for him and his family. We know how it can embitter physician-patient relations, and how it is doing precisely that each day of the week. To have 98 million people covered for surgical expense is an achievement, to be sure. But the fact is that the coverage of millions of these people is inadequate, and that in too many millions of cases it is pathetically inadequate.

What is particularly bad is that the coverages provided by many of our Blue Shield Plans are as inadequate and unrealistic as those of a large number of our commercial carriers.

Our business is patients, not quantitative statistics. Our measure of the job must be what it is doing for the individual who is our patient. Let us look at him. Can we expect the average lay citizen to know whether the coverage he is buying will prove adequate when he comes to use it? The answer being obvious, are we doing our job?

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LEAVING IT TO THE PEOPLE

Can we honestly expect the commercial carriers to do business in any other way than by taking the path of least resistance? The path of least resistance is simply selling the people what they think they want. And how are the people to know what they want from our extremely complex profession if we are silent? Or worse, if we allow our own plans to offer coverages that have little relationship to the realities of the cost of today's medical and surgical services?

There are those among us who are very much disturbed because the commercial carriers in the past five years have run circles around the Blue Shield Plans in the matter of enrollment. I for one am not too worried about this development. I see no compelling necessity for Blue Shield to worst the commercial carriers in competition. To me, as a practicing physician, Blue Shield is essentially the instrument through which I can hope to establish realistic and professionally responsive standards in medical coverage, and make them felt competitively.

ROLE OF BLUE SHIELD

Organized medicine in the U. S. has a formidable instrument in Blue Shield for maintaining the balance of control in the surgical-medical prepayment field, for influencing the competitive quality and scope of all of the coverages, and for providing the people with an honest, objective, and professionally realistic standard of coverage.

This is the role I see for Blue Shield. I have no desire to see it become a monopoly. I want it to serve primarily as a powerful catalyst in the growth and development of prepayment. But this is not the role Blue Shield is playing now. We doctors have become complacent, and under the influence of our complacency so many of the Blue Shield Plans have become tight little clubs of local smugness. Where the Blue Shield Plans should be catalysts, they show only stagnation.

A FEW SHORTCOMINGS

Some of our Blue Shield Plans reflect this stagnation in four characteristic ways:

- By refusing to increase benefits.
- By an increasing indifference to the principle of service benefits.
- By meeting all national challenges with a chip-shouldered leave-me-alone attitude.
- By a fond preoccupation with quantitative statistics.

Nor is it easy to expose and cope with these shortcomings, for their roots go back, unfortunately, to the very beginnings of Blue Shield.

The Blue Shield Plans were established in the main because the doctors, subjected to various pressures, came to realize that they had to offer a voluntary program of prepaid medical care or face the alternative of Government medicine. To most of the doctors it was a reluctant choice between two evils. They turned to Blue Shield as the lesser of the two, as simply the necessary evil. Here in Michigan, where the effort to establish a prepaid medical plan caused considerable dissension in the ranks of the doctors, the division was between those who saw the hard, unpleasant necessity for the effort and those who saw it only as folly. None was enthusiastic.

NECESSARY EVIL

This concept of Blue Shield as a necessary evil has persisted to this day. The first years of Blue Shield brought their inevitable troubles. Learning by the trial and error method proved a painful experience, in some cases embarrassing to the medical profession. Some of the unhappy results brought on a mood of stubborn caution.

When things eased up a bit, and the Plans began to grow and gain strength, the doctors relaxed in a defensive sort of a way, but the mood of caution remained, as did the concept of the necessary evil.

Today it is obvious that prepayment is the shape of the medical economics of the future. Moreover, this future is traveling toward us in seven-league boots. Voluntary prepayment is offering the American people and the medical profession unlimited opportunities for financing the Nation's health needs on a scale never before imagined.

THE NEW CHALLENGE

Prepayment is no longer something for the doctors to sponsor or not to sponsor. It is here. As Mr. Kirkpatrick has pointed out, it is already a multibillion dollar business, growing at a phenomenal rate even for an American phenomenon, with billions in reserve. Employers, labor unions, trade associations, farm organizations, are raising and putting aside more and more hundreds of millions of dollars each year to provide coverage for increasing millions of people, without so much as consulting the doctors. Independent plans, largely sponsored by labor unions that represent the extreme left wing of opposition to organized medicine, already provide surgical and medical coverage for more than five million people.

This is prepayment 1955. It is time that we doctors abandoned the attitudes of the 1930's and 1940's. It is imperative that the medical profession step in vigorously in today's prepayment developments to make its influence felt. This we will be unable to do until we bury once and for all the antiquated concept of Blue Shield as a necessary evil.

Developments in the prepayment field have already moved dangerously away from the necessary influences of the medical profession. It would be nothing but folly on our part to continue nursing our complacency and smugness while the billions in premiums and reserves build up a power beyond our control.

Looking Ahead

The medical profession needs a program:

1. We must set for ourselves the clear objective of getting the balance of control in the surgical-medical prepayment field into the hands of the medically-controlled plans, and achieving this end through the development of quality coverages of the highest professional standard.

2. We must completely reappraise our attitude toward the Blue Shield Plans, and recognize them for what they are—our only effective means for making the professional view and professional standards felt on the competitive market.

3. We must stop bemusing ourselves with quantitative statistics and get our thinking in line with the realities of the situation.

The prepayment movement has assumed a decided national pattern. It is on the national enrollment front that we are weakest, too, and primarily because of the local smugness of so many of our Blue Shield Plans. Our large manufacturing and transportation industries, our chain stores, and the many other Nation-wide enterprises are tending more and more to cover their employees with national contracts. Also within the labor unions enrollment decisions and enrollment planning have tended to move more and more to the level of the internationals.

The Major Handicaps

The following are the major handicaps that have hamstrung the Blue Shield Plans, and which, one must add, they can scarcely hope to overcome without the positive backing of the medical profession:

A. Too few of the Blue Shield Plans are real service plans. Management and labor see only the disadvantages in negotiating contracts on the national level with a dozen different indemnity plans—although they call themselves Blue Shield—when a commercial carrier can do the whole job with a single indemnity contract.

There is no getting away from the fact that to management and labor union officials, as well as to the average citizen, real service benefits are the distinguishing mark of the medically-controlled plans and spell out the advantages of professional sponsorship. Nor have the doctors any other way of imposing professional standards on their coverages than by underwriting services rather than dollars.

A Blue Shield Plan that is not a real service plan turns out to be neither fish nor fowl in the national enrollment picture.

B. The Blue Shield Plans that offer service benefits are still too addicted to unrealistic income limits, which in too many cases destroy the advantages offered by the service benefits.

C. Unlike the Blue Cross Plans, the Blue Shield Plans have not as yet developed the necessary national mechanics for working out uniform benefits for the national accounts that desire them.

National accounts generally want uniform benefits for all of their employees. The unions are even more disinclined than management to offer their members a motley of benefits, differing from state to state, often from city to city.

It is not my suggestion that the Blue Shield Plans should all adopt uniform fee schedules and uniform rates for their total operations. Nothing in my estimation would be more unrealistic. What is proposed is that the Blue Shield Plans adjust themselves to the necessities of coöperating with other Plans in the development of programs for national accounts that call for uniform benefits.

Need for Action

If the medical profession will take the necessary steps to eliminate the three handicaps I have described the Blue Shield Plans will then find themselves in a position of influence in the national enrollment area; that is the area in which our economy is making its major adjustments to prepayment. Unless this is done, unless we make it possible for the Blue Shield Plans to strike a practical balance between their responsibilities to their local communities and their function in serving the needs of the national economy, it is very much my fear that most of them will shortly become mere anachronisms.

Should the latter happen, organized medicine will suffer what may well turn out to be a disastrous defeat. The distinguishing mark of American medicine is the almost undivided responsibility the profession has in determining the standards and the direction of its own practice. This has been the source of its dynamics and its vitality, from which the people have derived such large benefits. It is this tradition of undivided responsibility that is now at stake.

It is at stake because unless organized medicine can now reveal the vigor and vision to extend its concept of professional responsibility into the prepayment field, it faces the real danger of becoming the pawn of those who control the rapidly accumulating billions going into prepayment. We doctors cannot regulate prepayment through legislation, for that would be compounding the danger. We cannot hope to influence it with professional advice. Under our system we can be an influence to be reckoned with only if we make our ideas and our standards competitively significant in the process that is shaping medical prepayment.

Power is not my thesis, but professional realism before this tremendously important new social development. It would be a social tragedy if in this hour, when the American people are spending increasing billions to secure for themselves the benefits of our services, that they were to be left to build their prepayment program in a medical vacuum.

This is what is beginning to happen and unless we doctors rid ourselves of our 1930 preconceptions and our 1940 attitudes, this may well happen with a swift and irreversible finality.

THE RALPH M. LeCOMTE POSTGRADUATE ASSEMBLY

Doctors Hospital's first Postgraduate Course, held in its Solarium, June 23, was dedicated to the memory of the late Dr. Ralph M. LeComte. From Washington and adjacent communities in Virginia and Maryland, 126 physicians attended the meeting.

Dr. Charles Stanley White, Chief of the Department of Surgery at Doctors, in a brief talk at the luncheon meeting, described Dr. LeComte as "one of the pioneers in this medical center who gave freely of his time and talents in promoting its interests." He went on to say: "Dr. LeComte was born in Pennsylvania and graduated from Georgetown University School of Medicine in 1910, spent two years as microscopist in the Army Medical Museum, one year in World War I, and interned in Providence and Columbia Hospitals. Dr. LeComte was always, from his medical school days until his retirement, a student and a scholar. His contributions to medical literature were thirty-five in number; in addition, he was the author of 'Manual of Urology,' which went through four printings and was translated into Spanish.

"He was appointed Professor of Urology at his Alma Mater in 1926 and served in that capacity until he voluntarily relinquished the assignment a few years ago.

"In this institution [Doctors Hospital] he was an active and progressive Director. He was an excellent pathologist and anatomist, a critical diagnostician, a competent and conservative surgeon, who could be bold when boldness was needed. He never lacked courage in the operating room or anywhere else. He was one who was never content with a superficial examination or a casual diagnosis. To a stranger, he may have appeared cool, self-effacing, or even abrupt in his manner, but to those who knew him well, he was the personification of loyalty, integrity and kindness.

"Dr. LeComte has been greatly missed in our group for his keen insight and advice in matters medical, administrative, and financial. He will always be missed, but his memory will ever remain green.

"The medical profession would be enriched if it could number among its members more Ralph LeComtes."

Dr. White expressed the hope that this postgraduate assembly would become an annual affair.

The scientific program consisted of six panel discussions on a variety of subjects and with the following participants:

Current Trends in Management of Peptic Ulcer. Moderator: Dr. Fred A. J. Geier. Panelists: Drs. Charles S. White, William M. Ballinger, Fred O. Coe, and Robert W. Sjogren.

Successful Treatment of Diabetes. Moderator: Dr. Maurice Protas. Panelists: Drs. J. Ross Veal, William Kurstin, and Donald Stubbs.

Early Detection, Diagnosis and Treatment of Cancer of the Cervix. Moderator: Dr. J. Keith Cromer. Panelists: Drs. I. Phillips Frohman, Richard H. Fischer, Henry L. Darner, and U. V. Wilcox.

The Medical and Surgical Aspects of Gallbaldder Disease. Moderator: Dr. Harry Lee Claud. Panelists: Drs. Arnold McNitt, Paul S. Putzki, Charles E. Bickham, and Oscar B. Hunter, Jr.

Suppurative Lung Disease. Moderator: Dr. Frank Ashburn. Panelists: Drs. Roy G. Klepser, E. Raymond Fenton, and Edgar P. Copeland.

The Painful Back. Moderator: Dr. Carl Berg. Panelists: Drs. William J. Tobin, Arthur Morris, Alan J. Chenery, and Darrell Crain.

NEW CANCER DIRECTORY

A new edition of a directory of services and facilities available to cancer patients throughout the United States has been issued by the Public Health Service, U. S. Department of Health, Education, and Welfare. It is called "Cancer Services and Facilities in the United States, 1954," and was compiled by the National Cancer Institute.

Besides revising information in the 1950 edition, the directory lists for the first time institutions and laboratories offering tissue diagnostic and cytodiagnostic services, which are essential to cancer diagnosis, and homemaker services available to cancer patients.

Organized by states, it gives names and locations of cancer hospitals and clinics and includes home medical care provided by hospitals, and home nursing services. It lists for each state the agency administering the official cancer program and the voluntary agency carrying on a state-wide program. It describes the status of cancer legislation and state-supported cancer diagnostic and treatment services and gives statistics on population, cancer mortality, physicians, and hospitals.

According to the directory, 33 states, Alaska, Hawaii, Puerto Rico, and the District of Columbia have legislation in effect with regard to cancer.

The new directory can be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for 45 cents a copy.

BOOK REVIEWS

Clinical Aspects of the Autonomic Nervous System. L. A. GILLILAN, PH.D., M.D., Associate Professor of Anatomy, Graduate School of Medicine, University of Pennsylvania. Price, $6.50. Pp. 316, with 42 illustrations by the author. Boston: Little, 1954.

This book presents a well organized approach to the part played by the Autonomic Nervous System in diseases befalling mankind. It is strange indeed that such a well recognized system playing an important part in health and disease should find such small representation in clinical literature. Perhaps this is because it is considered an anatomical stepchild. It was sired by the Central Nervous System and still maintains important home ties, but the neurologists, *aficionados* of the greater system, frequently tend to ignore its reticulated offspring. On the other hand, internists and surgeons fob off their need for knowing about the autonomic nervous system by saying that it is part of the nervous system and therefore the responsibility of the neurologists. Yet this orphan neural network possesses a quiet potency that literally stretches from the bowel to the finger tips. Any book which appears and is devoted exclusively to the autonomic nervous system certainly deserves perusal if not study unless it is execrably bad, and this book certainly is not bad.

The author presents his material in two main divisions. The first part of the book is devoted to the anatomy of the autonomic nervous system and presents in six chapters the origin, pathways and peripheral terminations of the system. These chapters are well illustrated by line drawings, clear and relatively uncomplicated, which help the reader to understand the text. Furthermore, the chapters are laced with interesting and valuable information having direct clinical application and more particularly with several tables showing the actions and sites of action of drugs on the sympathetic and parasympathetic divisions. In addition there are two tables classifying and correlating body and constitutional types which look as if some of the source material were derived from penny fortune-telling scales. On the whole, this otherwise dull subject of anatomy is quite digestibly presented.

The second part of the book is a corollary to the first and deals with the innervation of specific organs, such as the digestive tract, cardiovascular system, and so forth. Again, the easy style of writing and the frequent clinical references make the book quite readable.

As the author states, there is nothing particularly new in this book, it being his desire to make a compilation of known material. From the clinician's point of view, this book would have been enriched by more detailed reference to the clinical manifestations of autonomic dysfunction, including discussions of diseases and syndromes known to be largely the result of disorders of the sympathetic and parasympathetic nervous system. While on this point the book may fall short of expectations, it is an accurate, timely, and readable presentation of our knowledge of the physiology and the anatomy of the autonomic nervous system. As such it is highly recommended.

J.M.W.

A Ciba Foundation-Symposium: The Spinal Cord. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., B.CH., *Editor*. Assisted by JESSIE S. FREEMAN, M.B., S.B., D.P.H., J. L. MALCOLM, M.B., CH.B., B.MED.SC., AND J. A. B. GRAY. M.A., M.B., B.CHIR., *Consulting Editors*. Price, $6.50. Pp. 300, with 112 illustrations. Boston: Little, 1953.

This published symposium, one of a number of various subjects sponsored by the Ciba Foundation, reports the transactions conducted in London in late February of 1952.

The participants in the discussion are drawn largely from the Universities and Colleges of England, with a scattering from other countries, Sweden, Spain, Germany, France, and one from the United States. The participants are largely academicians, being physiologists, biologists, and anatomists. From this it may be gathered that the book is devoted to newer findings and newer concepts in neurophysiology and a study of these in the laboratory animal. The book is packed with records of crucial experiments relative to neural function in the spinal cord. The editors have wisely chosen to include the discussion which followed the presentation of each paper. As it happens so many times, these discussions are more sprightly, more informative, and more evocative than the papers themselves. This volume will appeal to all who work in the field of neurophysiology and physiology in general as a convenient collation of current knowledge of the physiology of the spinal cord.

J.M.W.

Fundamentals of Internal Medicine. 4th ed. WALLACE MASON YATER, A.B., M.D., M.S. (IN MED.), F.A.C.P., Director, Yater Clinic, Washington, D. C.; Formerly Professor of Medicine and Director of the Department of Medicine, Georgetown University School of Medicine; Physician-in-Chief, Georgetown University Hospital; Physician-in-Chief, Gallinger Municipal Hospital, Washington, D. C.; and Fellow in Medicine, Mayo Foundation, Rochester, Minnesota; with 21 contributors. This edition prepared with the assistance of WILLIAM FRANCIS OLIVER, B.S., M.D., A.A.C.P., Staff Member, Department of Medicine, Santa Barbara Clinic; Consultant, Santa Barbara General Hospital; Attending Physician, Cottage Hospital; Attending Physician, St. Francis Hospital, Santa Barbara, California. Price, $13.50. Pp. 1276, illustrated. New York: Appleton, 1954.

From its modest beginning as a series of brilliant lectures to medical students by Dr. Yater has evolved this impressive volume.

The fourth edition adheres to the original intent of the book, which was a presentation of the fundamentals of medicine in a contracted yet comprehensive manner. The 22 contributors have managed to maintain this policy, including at the same time many of the developments in the rapidly expanding medical field—a feat of no small proportions. Many readers will be distressed at the brevity of many of the topics, but to the exhausted medical student and busy practitioner the concise presentations will be welcomed.

Chapters on the eye, ear and dermatology are included with the justification that "in this one volume will be found the essentials of medical practice exclusive of surgery, obstetrics and the limited specialties." To the reviewer, sections on the eye and skin in systemic diseases would occupy a more comfortable place in a text of this type.

For basic data and as a quick reference source in internal medicine this book is admirable. It does not contain an exhaustive review of any topic, and medical students with whom this volume will prove popular should understand that its use must be supplemented by references to monographs and the medical literature, as the author himself suggests.

SOL KATZ, M.D.

News and Personals

MEETINGS—Past and Future

The Army Medical Service will conduct its **postgraduate course on the medical care of atomic casualties** at the Walter Reed Army Medical Center six times during the year beginning July 1, 1955. The first course was held July 11–16; the other five courses are scheduled for the following dates: September 12–21; December 5–14; January 30–February 8; March 19–28; and June 4–13.

The past year marked the first time representatives of the American Medical Association, the medical schools, and allied health agencies were admitted to the courses. Since a strict quota is maintained under an allotment system, applications for attendance from physicians or other qualified professional personnel must be made through their respective affiliations. Reserve medical officers may apply through the chief of their military district to the Commanding General of the appropriate Army area. Applicants are required to file their requests four weeks in advance of the course. Lodging and travel expenses for those attending the course are borne by the individual or the organization he represents.

The Annual Meeting of the Washington Heart Association was held, June 21, at the Mayflower Hotel. Dr. Bernard Walsh was moderator of a Panel Discussion on Rheumatic Fever. Among the panelists were Dr. John R. Seal, of the Navy's Bureau of Medicine and Surgery; Dr. Sydney Ross, Assistant Clinical Professor of Pediatrics, Georgetown University School of Medicine, and Dr. Arthur Sims, Assistant Professor of Clinical Pediatrics at Georgetown.

The panel discussion followed the Association's annual business meeting, during which the "Hercules Heart" statuettes were awarded to individuals who have furthered the work of the Association. Dr. Andrew J. Prandoni, Assistant Clinical Professor of Medicine, George Washington University School of Medicine, and Dr. John A. Reisinger were among those who received awards. Other recipients were D. C. Commissioner Samuel Spencer, Mr. John K. Evans, Mrs. Bernard J. Walsh, and Mr. Kenneth Birgfeld.

Officers for the following year were elected at this meeting. Reëlected to their offices were Dr. Reisinger, President, and Mr. Birgfeld, Treasurer. Dr. Prandoni was elected Vice President, and Mr. William T. Hannan, Secretary.

The Association of Former Internes and Residents of Freedmen's Hospital met for its 33rd Annual Session at Howard University, May 31 through June 2. Many of those who took part in the program were members of the Medical Society of the District of Columbia. Titles of some of the papers read at this meeting, particularly those whose authors or co-authors are members of the District Medical Society, follow:

"Erythromycin Sensitivity of Micrococcus pyogenes var. aureus in a Hospital Population (Development of Resistance)," Dr. Margaret E. Grigsby

"The Effect of Pneumoperitoneum upon Pulmonary and Cardiac Function," Drs. K. Albert Harden, C. Quarles, R. L. Hackney, A. Jordan, J. B. Johnson, and H. M. Payne

"Congenital Cardiovascular Anomalies in Adults," Drs. Leslie Hedgepath, Jean F. Gross, John B. Johnson, and John W. Lawlah

"Clinical Aspects of Sickle Cell Anemia in Children," Drs. Roland B. Scott, Melvin Jenkins, Angella D. Ferguson, and Harriette Clark

"Results of Definitive Surgical Therapy in Peptic Ulcer," Drs. Charles Clark, Jack White, and Burke Syphax

"Functional Uterine Bleeding," Dr. Walter L. Henry

"Substitute Pouch Following Total Gastrectomy," Dr. Walter H. Gerwig

"Fibromatosis—Plantar Fascia," Dr. Bernard Kapiloff

"A Mechanistic Approach in the Management of Rheumatic Diseases," Dr. Thomas McP. Brown

"Treatment with Artificial Kidney in Acute Salicylate Poisoning," Dr. George Schreiner

"Sexual Psychopathology," Dr. Benjamin Karpman

Participants in a Clinico-pathological Conference were Drs. J. Owen Blache, Kelley R. Brown, George Schreiner, Lloyd G. Lewis, and Ulysses L. Houston. Dr. Robert Gladden gave a running commentary on the movie, "Crash Injuries," a production of Cornell University.

The program this year was dedicated to Dr. Benjamin Karpman, Chief Psychotherapist at St. Elizabeths Hospital. A page in the official program was devoted to a short biography of Dr. Karpman and his accomplishments in the field of psychoanalysis and psychopathology. The early development of psychiatry at Howard University and Freedmen's Hospital is credited to Dr. Karpman, who labored "unselfishly and unstintingly" toward his goal, that all medical students of those early days should have an appreciation of the importance of psychiatry in the practice of medicine. The dedication closed with this nice tribute to him: "We shall always remember him as Dr. Ben Karpman, a great figure in the field of criminology, an entertaining speaker, a fond teacher, who loved his students."

Papers presented by members of the District Medical Society at the **35th Annual Session of the Southern Pediatric Seminar** in Saluda, North Carolina, during July, were well received. Dr. Hugh H. Hussey served as Dean of Internal Medicine for the Seminar. His panel of speakers included Drs. Sol Katz, Proctor Harvey, Marcus Schaaf, and James Moss, together with Dr. Eugene A. Stead, of Durham, N. C.

Dr. Hussey presented two papers on the subjects, "Recognition of Pulmonary Embolism" and "Bacterial Endocarditis." He also was moderator for an hour-long question and answer period on the subjects presented by his faculty.

Dr. Katz was moderator for a Panel Discussion on Diagnostic Problems, with Drs. Hussey, Harvey and Stead as the panelists. Dr. Katz also presented three papers: "Diagnostic Approaches in Pulmonary Diseases," "Current Trends in Treatment of Tuberculosis," and "Chemotherapy of Respiratory Infections." Dr. Harvey lectured at two morning sessions; his topics were "Diagnosis of Heart Disease by Auscultation" and "Recordings of Cardiac Murmurs and Arrhythmias."

Drs. Schaaf and Moss gave one lecture each; Dr. Schaaf discussed "Cortisone," and Dr. Moss, "Diabetes Mellitus."

GENERAL NEWS

Twenty-one physicians completed the **series of cancer detection lectures** given in the spring under the sponsorship of the District of Columbia Division of the American Cancer Society, the Section on General Practice of the District Medical Society, and the Medico-Chirurgical Society. All physicians who attended 6 or more of the 10 lectures received a certificate.

The objective of the course was to make every doctor's office a cancer detection center. Dr. C. Roger Kurtz, Chairman of the Professional Education Committee for Physicians of the Cancer Society, arranged the series of lectures, which were given by Washington specialists in the field of cancer.

Doctors to whom certificates were awarded were: Drs. Katherine A. Chapman, Arthur A. Davis, Cecile L. Fusfeld, Andrew E. Fischer, Herbert S. Gates, Earl W. Graeff, Robert R. Hottel, R. Stephen Hulburt, Edward S. Jones, C. Roger Kurtz, Harry Lowens, William G. Lofton, Sr., Beveridge Miller, Harold F. McCann, Tanner B. McMahon, Paul E. Piper, Theodore R. Pinckney, Charles V. Pate, Ignatius Rutkoski, Russell M. Tilley, Jr., and Maurice van Kinsbergen.

A two-color offset **reproduction of the Hippocratic Oath** is now available from the American Medical Association's Order Department. The Oath is printed on quality Crane parchment stock, measures 11¾ by 15¼ inches, and is suitable for framing. The reproductions sell for $1.00 each postpaid. They are appropriate for display in medical offices and reception rooms.

The Providence Hospital Alumni Association held its Annual Outing and Banquet on June 16 at the Kenwood Country Club. Dr. Frank S. Pellegrini, President of the Association, presided at the dinner.

Mr. John A. Reilly, who headed the New Provi-

MORGAN PORTRAIT PRESENTED TO MEDICAL SOCIETY

The above portrait of DR. WILLIAM GERRY MORGAN, Past President of both the Medical Society of the District of Columbia and the American Medical Association, was presented to the Medical Society in May by his daughter, MRS. O. B. HARDISON. On hand for the presentation of the portrait to the Society were (left to right): MRS. MORGAN; THEODORE WIPRUD, Secretary of the Society; DR. WILLIAM M. BALLINGER, associate of the late Dr. Morgan; DR. PRESTON A. MCLENDON, the President of the Society; MRS. HARDISON; and MRS. J. LAWTON NORWOOD a cousin, of Dr. Morgan. The portrait is the work of the well known Washington artist, Bjorn Egeli.

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dence Hospital Building Fund, announced that the one million-dollar goal had been exceeded. Providence doctors raised $147,874 among themselves, exceeding their quota by $35,000. The 8-million dollar hospital now under construction is expected to be completed by December. Mr. Reilly was awarded a bronze plaque "for distinguished service" to the Hospital.

At the Annual Dinner of the **Arlington County Medical Society,** held at the Washington Golf and Country Club, June 16, the **Welburn Award** was presented to Mr. Gilbert L. Hall, President Emeritus of the Board of Trustees of Arlington Hospital. The award was established a year ago by physicians of Arlington County in honor of Dr. W. C. Welburn, coroner and dean of Arlington physicians, for his outstanding service to medicine in Northern Virginia. Members of the Medical Society credited Mr. Hall for having conceived the plan for a hospital for Arlington County; he also played a large part in securing its final erection.

PERSONALS

In the June and July issues of the MEDICAL ANNALS were listed several members of the District Medical Society who had been recognized by their Alma Maters this spring for contributions to the fields of medicine and education. To that distinguished group of honorees must be added three others.

Rear Admiral Bartholomew W. Hogan, Surgeon General of the Navy, received the honorary degree of Doctor of Science from Boston College and Tufts University during their June commencement exercises. Admiral Hogan, who is an alumnus of both schools, received his medical degree from Tufts University in 1925. He is an Honorary member of the District Medical Society.

Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, was awarded the honorary degree of Doctor of Humane Letters, June 5, by St. Bonaventure University, in Olean, N. Y., which is the only Franciscan University in the world.

Dr. Howard T. Karsner, Research Advisor to the Surgeon General of the Navy, has been named one of the University of Pennsylvania's "Prominent Pennsylvanians." Dr. Karsner, who is an Associate member of the D. C. Medical Society, graduated from the University of Pennsylvania School of Medicine in 1903. He is author of the widely used textbook, "Human Pathology." He served as Chief Demonstrator in Pathology at the University of Pennsylvania's Medical School from 1908 to 1911, following which he was Assistant Professor of Pathology at Harvard Medical School for four years. He was Professor of Pathology and Director of the Institute of Pathology at Western Reserve University in Cleveland from 1915 to 1949.

Dr. Desmond S. O'Doherty, Assistant Professor of Neurology, Georgetown University School of Medicine, has been elected President of the Georgetown Hospital general staff. Dr. Thomas M. Gocke was elected Secretary of the general staff.

Dr. V. S. Lambros attended the Twentieth Anniversary Meeting of the founding of the International College of Surgeons in Geneva, Switzerland, May 23-26, and presented a paper on "Head Injuries in Infants and Children." Papers presented at this meeting by Drs. O. Hugh Fulcher and James W. Watts were reported in the June issue of the MEDICAL ANNALS.

Dr. James J. Feffer was elected President of the Board of Directors of the District of Columbia Tuberculosis Association at a meeting of the Board, May 9. Dr. Feffer is the new President of the TB Association.

Dr. Charles Stanley White has been reëlected for a three-year term to the Board of Trustees of George Washington University. His nomination by the Alumni Association was received and approved by the Board at its annual meeting on May 19.

Dr. Edward P. Luongo of Los Angeles, Calif., Medical Director of General Petroleum Corporation and an Associate member of the District Medical Society, has been appointed Associate Clinical Professor of Medicine (Industrial) at the University of California at Los Angeles. The position is a part-time one; Dr. Luongo will continue his duties as Medical Director of General Petroleum.

On June 9, Dr. Luongo was elected Chairman of the AMA's Section on Preventive Medicine at its annual meeting in Atlantic City.

At a luncheon meeting of the Kiwanis Club of Washington, June 9, special tribute was paid to the late **Dr. Custis Lee Hall,** orthopedic surgeon, who worked for many years with the crippled children who were wards of the Club, and to **Dr. Frank Hand,** his successor. The doctors were lauded by Mr. Martin T. Wiegand, Past President of the Club and former Governor of the Kiwanis District which includes the District of Columbia.

Dr. David H. Kushner spent the month of June in Europe, visiting Holland, Belgium, Germany, Switzerland, Italy and France.

In a letter addressed to the Secretary of the Medical Society from Rome, June 20, he stated that that day he attended the clinic of Professor Luigi Cattaneo at the University of Rome Hospital and observed while he "performed a radical hysterectomy for cancer of the cervix with excellent technic." Dr. Kushner spoke informally to the resident staff of the Obstetric and Gynecologic Division of the Hospital on "Fetal Survival in Cesarian Section," presenting statistics from Columbia Hospital for Women. Dr. Kushner was recently appointed Chief of Staff at Columbia.

After leaving Rome, Dr. Kushner went on to Paris where he attended the International Syndicate of Gynecologists and Obstetricians, June 27–28. He arrived home, July 1, via the Pan American Airways. Dr. Kushner was accompanied on his trip abroad by Mrs. Kushner and their young daughter, Delia.

Dr. Sol Katz, Chief of the Division of Pulmonary Diseases at D. C. General Hospital, **and Dr. James J. Feffer,** Associate in Medicine at both George Washington and D. C. General Hospitals, took an active part in the 21st Annual Meeting of the American College of Chest Physicians in Atlantic City, N. J., June 2–5. Dr. Katz read a paper on "Management of Tuberculosis in the Elderly Patient." Dr. Feffer participated in a Panel Discussion on the Future of the Tuberculosis Sanatorium.

Dr. Charles L. Smith, an Associate member of the District Medical Society, was elected President of the District Board of Dental Examiners, June 29.

Dr. Smith is a graduate of the Georgetown University School of Dentistry and has been practicing oral surgery in the District of Columbia since 1923.

Dr. Theresa T. Woo received her Master's degree in Public Health *cum laude* from the Harvard School of Public Health on June 16.

Dr. Walter H. Gerwig, Associate Clinical Professor of Surgery, George Washington University School of Medicine, addressed the Marion County Medical Society in Fairmont, West Virginia, June 28, on the subject, "Gastric Surgery."

Dr. Garnet W. Ault, of The Proctology Clinic of Washington, attended the meeting of the American Proctologic Society at the Hotel Statler in New York, June 1–4. During the scientific program, Dr. Ault discussed a paper on "Epidermoid Carcinoma of the Anal Region," which was presented by Dr. M. W. Stearns, of Memorial Hospital, New York.

Dr. William D. Claudy, who went abroad with the Army Medical Corps in May, 1953, has resumed his practice of internal medicine in his former offices at 1746 K Street, N.W. During his overseas assignment

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
May 17	Dr. Maxwell Boverman	Discipline and the Child	Twin Oaks Nursery School Mothers
May 26	Dr. Ella Oppenheimer	New Program for Retarded Children	Help for Retarded Children, Inc.
June 7	Dr. George Maksim	Distribution of Salk Vaccine	Coöperative Forum of D. C.
June 12	Dr. Raymond Osbourne	Care of the Skin during the Summer Months	Adult Group, Takoma Park Seventh-Day Adventists Church
June 12	Dr. Winfred Overholser	Our New Challenge: Mental Illness—A Panel Discussion	Town Meeting of the Air, WMAL
June 21	Dr. John A. Reed	Health Program for the District Police and Fire Departments	Southwest Harbor Lions Club
June 28	Dr. Frederic G. Burke	The Role of an Organization for Treating Crippled Children in the Community	D. C. Society for Crippled Children, Inc.

Dr. Claudy was Chief of Professional Services and Chief of Medicine at the new Bitburg Air Force Base Hospital in West Germany, near the Luxembourg border, the second largest Air Force hospital in Germany. Dr. Claudy returned to Washington, May 1.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Proceedings of the Third Medical Conference of Muscular Dystrophy Associations of America, Inc., New York, N. Y., October 8 and 9, 1954. Edited by H. D. Bouman, M.D., Madison, Wisconsin. Originally published in the *American Journal of Physical Medicine*, Vol. 35, No. 1, February, 1955. Paper. Pp. 324. Baltimore: Williams & Wilkins, 1955.

Pathology for the Surgeon, 7th ed. Edited by William Boyd, M.D. Edin., Dipl. Psychiat. Edin., F.R.C.S. Canada, F.R.C.P. Lond., M.R.C.P. Edin., F.R.S. Canada, LL.D. Sask., D.Sc. Man., M.D. Oslo, Lecturer on the Humanities in Medicine, The University of Toronto; Visiting Professor of Pathology, The University of Alabama; Formerly Professor of Pathology, The University of Manitoba, The University of Toronto and The University of British Columbia. Price, $12.50. Pp. 737, with 547 illustrations, including 10 in color. Philadelphia: Saunders, 1955.

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Brucelosis. M. Ruiz Castañeda, M.D., Director del Departamento de Investigaciones Médicas, Hospital General, Mexico, D.F., Miembro del Comité de Expertos en Brucelosis de la Organización Mundial de la Salud. Price, $5.00. Pp. 302. Mexico: La Prensa Medica Mexicana, 1954.

A Textbook of Medicine, 9th ed. Edited by Russell L. Cecil, M.D., Sc.D., Professor of Clinical Medicine Emeritus, Cornell University, New York, and Robert F. Loeb, M.D., Sc.D., D.Hon. Causa., LL.D., Bard Professor of Medicine, Columbia University, New York. Associate Editors: Alexander B. Gutman, M.D., Ph.D., Professor of Medicine, Columbia University, New York; Walsh McDermott, M.D., Livingston Farrand Professor of Public Health and Preventive Medicine, Cornell University, New York; Harold G. Wolff, M.D., Professor of Medicine (Neurology), Cornell University, New York. Price, $15.00. Pp. 1786. Philadelphia: Saunders, 1955.

Collected Reprints of the Grantees of the National Foundation for Infantile Paralysis, 1954. Volume XV, Parts I and II. Publ. No. 33-P. New York The National Foundation for Infantile Paralysis, 1955.

Surgical Forum—Proceedings of the Forum Sessions, Fortieth Clinical Congress of the American College of Surgeons, Atlantic City, N. J., November, 1954. Committee on Forum on Fundamental Surgical Problems: Harris B. Shumacker, Jr., M.D., F.A.C.S., Indianapolis, *Chairman*; J. Garrott Allen, M.D., F.A.C.S., Chicago; Bradford Cannon, M.D., F.A.C.S., Boston; Warren H. Cole, M.D., F.A.C.S., Chicago; Robert E. Gross, M.D., F.A.C.S., Boston; J. Albert Key, M.D., F.A.C.S., St. Louis; C. Hunter Shelden, M.D., F.A.C.S., Pasadena; Howard C. Taylor, Jr., M.D., F.A.C.S., New York; Samuel A. Vest, M.D., F.A.C.S., Charlottesville. Price, $10.00. Pp. 851, with illustrations. Philadelphia: Saunders, 1955.

BOLIVAR JONES LLOYD, M.D.
(1872–1955)

Dr. Bolivar J. Lloyd, retired Public Health Service official, died May 28, 1955, at his home, 4342 Warren Street, N.W. His professional career had covered nearly every phase of Public Health activity, including work in bacteriology and serology. He specialized in the control of bubonic plague, yellow fever, smallpox, and typhoid fever. He was experienced in the control of other diseases in man and in the control of hog cholera.

Dr. Lloyd was born in Bryan, Texas, the son of David S. and Mary Benson Lloyd. He received his medical education at the University of Texas, graduating in 1897. In 1900, Dr. Lloyd joined the Public Health Service as an assistant surgeon. He was sent to San Francisco to begin fighting the bubonic plague. His activities took him up and down the West Coast and to Alaska, where he also fought smallpox. Often he was injected with plague and yellow fever vaccines when these were in the experimental stage, but he never suffered any ill effects.

Dr. Lloyd was loaned to the Republic of Ecuador in 1906, where he had been sent to fight yellow fever and the bubonic plague. Earlier, in 1904, he had fought the plague in Peru. He became the first Director of Health in Ecuador in 1908 and was personal physician to the President of Ecuador from 1907 to 1910. While in this country he married Josephine Gomez, daughter of the president of the Ecuador Senate and a state governor.

Detailed to the U. S. Navy during World War I, he was Sanitary Adviser-Inspector of the 13th Naval District with the rank of Lieutenant Commander, serving from 1917 to 1919. His duties were chiefly in connection with the control of communicable diseases.

From 1926 until he retired in 1937, Dr. Lloyd served as Assistant Director of the Pan American Sanitary Bureau, developing its work and editing the *Pan American Sanitary Bulletin*. During these years he visited Cuba and drafted the law reorganizing the national Public Health Service of that Republic.

Dr. Lloyd supervised the translation of the tenth revision of the U. S. Pharmacopoeia into Spanish. His writings were extensive and his articles were published in both the United States and Latin America.

Dr. Lloyd had been an Associate member of the Medical Society of the District of Columbia since 1923. He was a member of the American Medical Association, the Pan American Medical Association, an honorary member of the National Academy of Medicine of Lima, Peru, and a member of the National Sojourners. He was also a Mason and a Shriner.

Among the decorations Dr. Lloyd received were the Order of Merit, Grade of Commander, Republic of Ecuador, and the Order of Carlos Finlay, Republic of Cuba.

Dr. Lloyd is survived by his wife, Mrs. Josephine Gomez Lloyd, and three sons: Edmund H. Lloyd, of Columbia, Ohio; Bolivar J. Lloyd, Jr., of Bethesda, Md.; and Roger M. Lloyd, of Arlington.

LAURETTA E. KRESS, M.D.

(1863–1955)

Dr. Lauretta E. Kress, of Orlando, Fla., formerly of Washington, and one of the oldest women doctors in the country, died, June 28, 1955, at the age of 92 years. Dr. Kress, an obstetrician, and her husband, Dr. Daniel Kress, who was the first Medical Director of the Washington Sanitarium in Takoma Park, had lived in Orlando since they retired from practice in 1939.

Dr. Kress was born in Flint, Michigan, February 10, 1863. At the time of her marriage in 1884, her husband was a Baptist minister. Deciding on a joint medical career, they enrolled at the University of Michigan and graduated from its School of Medicine in 1894. They joined the Seventh-Day Adventist Church and served on the staff of the Sanitarium at Battle Creek, Michigan, for 4 years. They opened sanitariums in London, England, and Sydney, Australia, before they came to the Washington Sanitarium in Takoma Park in 1907.

During her 55 years of obstetrical practice in Washington and abroad, Dr. Kress delivered more than 4,500 babies. In 1934 they celebrated their golden wedding anniversary by inviting more than 2,000 patients whom she had delivered to celebrate the occasion at their home, then at 705 Carroll Avenue, Takoma Park, Md.

In 1939, when they retired to private life, hundreds of friends and patients gathered on the lawn of the Washington Sanitarium to extend to the doctors their farewells and good wishes for many years ahead in which to carry out their long cherished plans for retirement. Dr. Daniel Kress, a neurologist, wanted to continue his writings, and Dr. Lauretta, as she was called by her friends, who had already authored several books on food and diet, looked forward to trying out new cooking recipes.

During the doctor shortage of World War II, Dr. Kress went back into practice and continued her work until a few years ago.

Dr. Kress became an Active member of the Medical Society of the District of Columbia in 1917 and transferred her membership to Associate in 1937. Two years later she resigned when they moved to Orlando, Florida.

Dr. Daniel Kress survives his wife. A daughter, Dr. Ora H. Kress-Mason, of Murray, Ky., a pediatrician and the wife of a doctor, survives her mother. The Kress' had two other children, both of whom are deceased. During their younger years they adopted and educated 11 others. Funeral services were held in Winter Park, Florida, at the Kress Memorial Church, which was dedicated to the doctors last year.

Terminus ad quem of Surgical Man—Copeland

(*Continued from page 402*)

famous physician and philosopher who lived between 1135 and 1204 A.D. The most widely known of his writings today is the "Physician's Prayer," the beauty and sincerity of which I should like to leave with you to meditate upon in the days to come.

> "And now I turn unto my calling;
> Oh, stand by me, my God, in this truly important task!
> Grant me success! For—
> Without Thy loving counsel and support
> Man can avail but naught.
> Inspire me with true love for this my art
> And for thy cre-a-tures.
> Oh, Grant—
> That neither greed nor gain, nor thirst for fame, nor vain ambition,
> May interfere with my activity.
> For these, I know, are enemies of Truth and Love of men,
> And might beguile one in profession,
> From furthering the welfare of thy creatures.
> Oh, strengthen me!
> Grant energy unto both body and the soul,
> That I may e'er unhindered ready be
> To mitigate the woes,
> Sustain and help,
> The rich and poor, the good and bad, the enemy and friend.
> Oh, let me e'er behold in the afflicted and the suffering
> Only the human being!"

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Genius, Alcohol, Toxins and Lues—Podolsky

(*Continued from page 406*)

drug-taking were Coleridge, DeQuincey, James Thomson, Swinburne, Rossetti and Francis Thompson.

Some of the works of these men show evidence of drugged inspiration. Coleridge's "Kubla Khan," as well as his "Christabel," are works written by a mind exhilarated by drugs; Edgar Allan Poe's "The Fall of the House of Usher" is another literary masterpiece which gives unmistakable evidence of drug inspiration. Similarly, "The City of Dreadful Night" was composed by James Thomson while his senses were sharpened by artificial stimulation.

The question may be asked if these men did their best work in spite of their ailments or addictions rather than because of them. Then, again, the occurrence of both may have been coincidental. Or still again, perhaps they may have done better work if they had been free of disease or addiction. These offer further grounds for speculation.

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PRINCIPLES AND FACTORS INFLUENCING THE TREND OF ANTIBIOTIC THERAPY*†

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THE effect of antibiotics upon the control of infections is legend. So dramatic has been the effect that infectious disease today is often viewed in a false perspective. The antibiotics have given the physician not only confidence, but overconfidence. We tend to forget that the control of infections is a complicated relationship among the host, the microorganism, and the antibiotics. Despite the tremendous effect that the antibiotics have had in decreasing mortality rates and controlling infectious diseases, we should never lose sight of the basic concept that our objective is the prevention of disease. At the same time, while studies along these lines are in process, we should use as our theme in antibiotic therapy the thought that discrimination in their use will be uppermost, and that a single antibiotic will be administered whenever possible in adequate dose and for an adequate time. Along with this must go the basic principle that for rational antibiotic therapy there must be definitive diagnosis and definitive bacteriology. The development of the antibiotics has not lessened the need for definitive bacteriology but has increased it. This is particularly so as more antibiotics have been developed and the indications have become more specific.

The following are factors which I should like to discuss, and I hope that they may aid the clinician in utilizing the antibiotics to their best advantage:

I. Mode of action.

II. The changing pattern of bacterial sensitivity to the antibiotics; in vitro sensitivity tests and their interpretation; cross resistance.

III. Combinations of antibiotics and a few points relative to synergy and antagonism.

IV. Side-effects of the antibiotics.

V. The hormones, cortisone and ACTH in relation to infectious diseases and the use of the antibiotics.

In our daily use of the antibiotics we have become so impressed with their wondrous action that we tend to forget the host. We tend to forget that the primary action of the antibiotics is their inhibitory action on the pathogenicity of bacteria and that the host is essential for eventual cure by virtue of his humoral and cellular defenses. It is this lack of consideration of the host which may account for the occasional discrepancy between in vitro sensitivity tests and the clinical results. I shall discuss certain aspects of this a little later. Our objective in treatment is to produce an effective concentration of an antibiotic at the site of infection, until the organisms have been killed by the agent or eliminated by the host.

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* Presented as the first of the Lilly Lecture Series in Central and South American countries during March, 1955.

† This is the first of a series of comprehensive reference articles on topics of current medical interest prepared by invitation for the MEDICAL ANNALS.

I. MODE OF ACTION

Antibiotics exert their effect on bacteria in a fashion quite different from that of the disinfectants. Antibiotics require a definite time interval between exposure to bacteria and their effective action. In vitro there is also a maximum concentration above which no further antimicrobial action occurs. The antibiotics act chiefly on multiplying organisms. This is of practical clinical importance particularly in chronic infections in which the bacteria, although sensitive, may lie dormant in areas anatomically inaccessible to antibiotics. Subacute bacterial endocarditis and osteomyelitis are excellent examples of the latter. At best the terms "bacteriostatic" and "bactericidal" are rather crude approximations, but from the clinical standpoint they have an important implication. The inhibitory concentration and the lethal concentration are rather close with such antibiotics as penicillin, bacitracin, streptomycin, and polymyxin, while the gap between them is rather wide in the case of chloramphenicol and the tetracycline group (chlortetracycline, oxytetracycline, and tetracycline). Erythromycin probably lies somewhere between these two groups. The basic problem occurs where body defense of the host is minimal, as for instance in subacute bacterial endocarditis and chronic pyelonephritis. In these situations maximal bactericidal effect is necessary.

The distinct method by which the antibiotics interfere with bacterial metabolism is still a mystery. Barclay has shown by radioactive studies that tubercle bacilli sensitive to isoniazid take up approximately 95 per cent of this agent, while resistant strains take up less than 5 per cent. The antibiotics might act by competing with necessary nutrients, as has been demonstrated with the sulfonamide compounds, or the antibiotics may have the ability to combine with certain essential metabolites and remove them from action.

II. THE CHANGING PATTERN OF BACTERIAL SENSITIVITY, IN VITRO SENSITIVITY TESTS, CROSS RESISTANCE

At this point we might ask ourselves what part the changing pattern of bacterial sensitivity to the various antibiotics has played as related to the trends in antibiotic therapy. It is not clear at present by which mechanism resistant forms appear. Suffice it to say that there is controversy about two different theories: (1) Resistant strains appear because the bacterial population contained a few organisms which were originally and genetically resistant to the antibiotics, and these proliferate as the sensitive ones are inhibited by the antibiotics; (2) mutants with acquired resistance develop and flourish in the presence of an antibiotic. It is probable that both of these mechanisms are present when antibiotic-resistant strains appear. Since the advent of penicillin into clinical use approximately 13 years ago, certain antibiotic-resistant organisms have become a considerable problem in the antibiotic field. This should not be interpreted to mean that all bacteria are affected in this fashion by the antibiotics. As a matter of fact, as noted in table 1, certain microorganisms have shown no evidence of developing resistance to the various antibiotics. This is particularly so with the pneumococcus, the meningococcus, the group A beta hemolytic streptococcus, the gonococcus, the treponemes, and *Hemophilus influenzae*. Infections caused by this group of microörganisms usually respond

Dr. Romansky

Dr. Romansky, who leads in this new series, has come a long way as a research worker and scientific writer. Since early in his career, his name has been linked with research in penicillin and other antibiotics. He served for four years in the Army Medical Corps during World War II, and was awarded the Legion of Merit for his research in penicillin.

Dr. Romansky is a graduate of the University of Rochester School of Medicine (1937). Since 1946 he has been on the teaching staff of the George Washington University School of Medicine and Hospital, and since 1950 chief of the George Washington University Medical Division at the D. C. General Hospital. He is a diplomate of the American Board of Internal Medicine and a member of many outstanding scientific organizations, including the American College of Physicians and the American Federation for Clinical Research. His reputation in the field of antibiotics is attested by a long bibliography in the literature.

In his four-fold capacity as teacher, researcher, writer, and practitioner, he exemplifies a versatile and able scientist.

TABLE 1

Changing Pattern of Bacterial Sensitivity to the Antibiotics: Tendency toward Development of Resistance

Rarely	Occasionally	Frequently
Group A beta hemolytic streptococcus	Alpha hemolytic streptococcus	Micrococcus (staphylococcus)
Pneumococcus	Nonhemolytic streptococcus	Proteus
Meningococcus		*Pseudomonas aeruginosa*
Gonococcus		Enterococcal group
H. influenzae		*E. coli*
Treponemes		*A. aerogenes*
		Mycobacterium tuberculosis

readily when adequate amounts of a single antibiotic are used for an adequate period of time.

The enterococci are generally resistant to penicillin. The microörganisms which commonly tend to show evidence of resistance to the tetracycline group or are initially resistant to this group are the proteus, *Pseudomonas aeruginosa*, and the enterococci. The coli aerogenes group have also shown this but to a lesser degree. The same pattern tended to be present with chloramphenicol, but with its lesser use since 1952 there appears to be a lower incidence of resistance. The organisms just mentioned generally develop resistance to streptomycin when this agent is used alone in the average nontuberculous infection for more than 5 days. Streptomycin has its greatest effectiveness, as I shall point out later, when used in combination. The tubercle bacillus is well known for its tendency to develop resistance to streptomycin when used alone, as it does to the other available agents when used individually.

Although hospital strains of alpha hemolytic streptococcus have shown some degree of development of resistance to penicillin, their resistance to the tetracycline group and to chloramphenicol is more noticeable. A recent study indicates that alpha hemolytic streptococci, obtained from patients with subacute bacterial endocarditis caused by these organisms, show little indication of being resistant to penicillin.

PATTERN OF STAPHYLOCOCCUS RESISTANCE TO VARIOUS ANTIBIOTICS

In relation to resistance most of our attention has been focused on the staphylococcus. It is here that in vitro sensitivity tests are most often required and that combinations of antibiotics will be used most frequently. This point I shall discuss a little later.

In table 2 the pattern of resistance is well illustrated by the hemolytic *Staphylococcus aureus* which, in the period from 1943 to 1947, showed approximately 30 per cent of the strains resistant to more than 1 unit per ml. of penicillin in vitro. This increased to 62 per cent from 1948 through 1951 in the freshly isolated strains of staphylococci obtained from hospitalized patients. It is interesting to note that the frequency of appearance of resistant strains is also related to the antibiotics used. This is illustrated by the following: After the initiation of the Korean episode in June 1950, casualties were returned to Washington. My group had occasion to study the in vitro sensitivity of staphylococci from wounds of these patients. Interestingly enough, in 1950 to 1951, as noted in table 2, the number of resistant strains from Korean casualties was 35 per cent, the same as that in 1943 to 1947 in the United States, when large quantities of penicillin had not yet been in use. In other words, very little penicillin had been used in Korea as of 1950, hence the low rate of staphylococci resistant to penicillin. The over-all percentage in this period is approximately 40 to 45 per cent. It is also during this period of time that the tetracycline group, chloramphenicol, and others of the new antibiotics have decreased the use of penicillin. Hence, with the lesser use of penicillin, a tendency toward a lesser number of penicillin-resistant staphylococci has occurred. Similarly, the increased use of the tetracycline group has produced an increased number of resistant strains of staphylococci to chlortetracycline, oxytetracycline, and more recently tetracycline, since 1950 to 1951. The occurrence rate of such resistant strains approaches 50 per cent. On the other hand, with the decreasing use of chloramphenicol since 1952, there has been a decrease in the numbers of chloramphenicol-resistant staphylococci. The available information indicates approximately 13 per cent as being resistant. Erythromycin by in vitro studies in 1952 revealed about 6 per cent of strains of staphylococci resistant to erythromycin.

TABLE 2*

Pattern of Staphylococcus Resistance to Various Antibiotics—in Per cent†

Antibiotic	1943–1947	1948–1949	1950	1951	1952	1953–1954
Penicillin over 1.0 unit/ml.	30	58	61 (35‡)	62	49	44
Streptomycin over 20 μg./ml.	—	3	23	23	30	40
Chlortetracycline over 20 μg./ml.	—	—	1	27	39	53
Oxytetracycline over 20 μg./ml.	—	—	—	31	54	56
Tetracycline	In preliminary studies pattern similar to chlor- and oxy-tetracycline.					
Chloramphenicol over 20 μg./ml.	—	—	1	17	23	13
Erythromycin over 3.0 μg./ml.	—	—	—	—	6	12

* Parts of table 2 represent a combined study with Mr. Matthew Fusillo, Antibiotic Laboratory, Walter Reed Army Hospital, Washington, D. C.

† The number of strains tested varies from 50 to several hundred.

‡ Staphylococci from overseas Korean wound infections.

In staphylococcal infections other than endocarditis erythromycin has been very effective. In staphylococcal endocarditis erythromycin and chloramphenicol appear to be the most effective combination. It appears that there has not been a great increase in the number of staphylococcal strains resistant to erythromycin since 1952.

The circumstance of resistant staphylococci is not a simple one. It has been established that hospital personnel tend to carry more penicillin-resistant staphylococci than the general population. It has also been shown that these penicillin-resistant staphylococci by bacteriophage typing tend to be in group 3 rather than in the other phage groups. This has also been noted by observers in England, Sweden and Australia. It should also be mentioned that, due to the limited number of bacteriophages, the number of staphylococci which can be typed is also limited. Therefore, in the various bacteriophage types there may be many duplications of the various resistant strains. It appears that, once out of the environment of the hospital, the carrier of resistant staphylococci will probably have a decrease in the number of resistant organisms over a period of weeks.

As I have pointed out, since, with the appearance of a new antibiotic there appears a decrease in the number of resistant strains to the older antibiotics, there will probably be in the future a continuing need for new antibiotics and for a new evaluation of the old ones. Personally I do not agree with some of the other workers in this field who believe that some of the new antibiotics should have a restricted use. For example, it is their belief that erythromycin should be restricted for use in staphylococcal infections. As table 1 indicates, as new antibiotics are used, reversal of resistance to the other antibiotics occurs, and, therefore, it seems more practical to use a new antibiotic when it is indicated.

Although it is not likely that we will be overwhelmed with infections due to resistant organisms, nevertheless each individual case is a problem in itself. It is also pertinent, as Spink has reported, that the fatality rate for staphylococcal septicemia before the advent of the sulfonamides was over 80 per cent, and slightly less than this during the sulfonamide era. Just after the introduction of penicillin in approximately 1943, the fatality rate fell to about 28 per cent. In recent years it has again risen to about 50 per cent, apparently owing to the fact that many staphylococci were resistant to the available antibiotics. These observations have been noted by a number of other investigators.

IN VITRO SENSITIVITY TESTS

Some consideration should be given to the interpretation of the in vitro sensitivity test itself. A variety of technics are utilized in performing these tests. Some of them are more quantitative than others and thereby of more value. Generally speaking, there is a reasonable relationship between the results of the sensitivity tests and the clinical response. There are certain points that are not answered by in vitro sensitivity tests. When the disc technic is used, a report that the microörganism is sensitive is of more significance than when resistance is noted, since, when the bacterium is reported as resistant, we have no way of knowing whether it is at the borderline range of resistance. For example, it may be resistant to 1 unit or 50 units of penicillin, and in the range of 1 unit large doses of penicillin may probably be successful. The quantitative broth dilution technic generally gives us the answer to this problem, but it does not give us the answer to the proportion of sensitive and resistant organisms that might be present.

Not infrequently an organism may be reported as resistant, yet the clinical result is satisfactory. This is illustrated by tuberculous infections in which resistant tubercle bacilli may be reported but the clinical response continues to be satisfactory. The explanation for this may be that the great majority of strains are sensitive and the body immune mechanism can control the number of resistant strains. Thus, relapses may occur in the presence of apparently effective therapy, when the body immunity is unable to cope with the excessive number of resistant strains.

CROSS RESISTANCE

Another factor added to the other problems of antibiotic-resistant strains is the cross resistance which exists, for example, with chlortetracycline, oxytetracycline and tetracycline. In essence, this means that microörganisms which have developed resistance to one of the tetracycline group are very likely to show resistance to another member of this group. If, for example, chlortetracycline has been used against a microörganism and resistance develops, it may show resistance also to oxytetracycline, to which this organism has never been exposed.

Although one cannot predict it, strains resistant to the tetracycline group will occasionally also show resistance to chloramphenicol. I have reported on this from both in vitro and clinical studies, as have others. The same phenomenon is true of streptomycin and dihydrostreptomycin, as well as erythromycin and carbomycin. The implication here is the need for in vitro sensitivity tests when cross resistance between antibiotics might be a factor.

III. COMBINATIONS OF ANTIBIOTICS

It is natural at this time to pass on to the question of combinations of antibiotics, since it is in this area that it may be possible to prevent the emergence of resistant strains. Discussion of combinations of antibiotics invariably brings up the question of synergy and antagonism of the antibiotics. It is well to bear in mind that antibiotic antagonism is not a chemical reaction, but a biological one. It has to do with the effect of the two antibiotics on the particular microörganism. There is no clear-cut answer from the experimental and clinical data as to the specific mechanism of antagonism of the antibiotics. As a matter of fact, from a clinical standpoint a very slight amount of data is available. In general, at least in animal experiments, requirements for antagonism seem to be that an effective bactericidal agent, such as penicillin, be used in combination with a bacteriostatic antibiotic, such as chlortetracycline. In other words, the bacteriostatic agent, administered first, suppresses multiplication of the organism and thereby neutralizes the effect of the active bactericidal antibiotic. This in itself may not be a sufficient answer. Antagonism is probably also based on the specific interference of one antibiotic with the metabolism or some other process in the microörganism essential to the maximum action of the other antibiotic. The crux of this matter from a clinical standpoint is the use of a single agent, unless there are specific reasons for the use of two. For example, the group A beta hemolytic streptococcus, the pneumococcus, the meningococcus, the gonococcus, and the spirochetes, all of which are very sensitive to individual antibiotics and do not develop resistance, require no more than one antibiotic. One may broadly classify the antibiotics from the standpoint of synergy, antagonism, and additive effect into two groups, as noted in table 3.

TABLE 3

Combinations of Antibiotics as Related to Possible Synergy, Antagonism, and Additive Effect

Group 1: Penicillin, streptomycin, bacitracin, neomycin, probably polymyxin are frequently synergistic, occasionally additive, rarely antagonistic.

Group 2: Oxytetracycline, chlortetracycline, tetracycline, chloramphenicol, and probably erythromycin may either have additive effect or occasional synergism, or occasional antagonism.
The synergistic effect is more apt to occur with these when the microörganisms tend to show resistance.

Synergistic effect by the antibiotics was well illustrated some years ago by Eagle in experimental rabbit syphilis, in which it was shown that only 1/40 the amount of penicillin and 1/7 the amount of bacitracin, when used together, produced the same effect as the full dose of each. This has also been shown clinically by the effects of penicillin and streptomycin in enterococcal endocarditis, in which frequently this organism is resistant to each of the antibiotics individually, but when given together the result is satisfactory.

The following clinical situations are also best managed by a combination of antibiotics, as shown in table 4.

We are all familiar with the favorable effects fo streptomycin or dihydrostreptomycin and para-amino-salicylic acid or isoniazid in tuberculosis. Brucellosis is another example in which streptomycin and one of the tetracycline group are more effective than either alone. Recent reports indicate that streptomycin and erythromycin may be effective also. Klebsiella or Friedländer's pneumonia, which still has a mortality rate of 50 to 70 per cent, seems to respond best in my own experience to streptomycin and one of the tetracycline group or chloramphenicol. Pseudomonas infections, when not responding to polymyxin B, may respond to polymyxin and streptomycin, or polymyxin and one of the tetracycline group. Generally, in vitro sensitivity tests are helpful in indicating the agent for Proteus infections. This may be one of the tetracycline group, furadantin, chloramphenicol, or occasionally one of the soluble sulfonamides. The combination of streptomycin with one of the aforementioned may be needed.

One of our major problems upon which I have already touched is the occurrence of penicillin-resistant staphylococci, which, in my own experience, respond to erythromycin when endocarditis is not a factor. With endocarditis due to this organism best results appear to be with erythromycin and chloramphenicol.

Among the other combinations which have been tried in staphylococcal endocarditis are penicillin and streptomycin, and despite the possibility of antagonism between penicillin and chlortetracycline there are reports of this combination being effective. Bacitracin and erythromycin, and erythromycin and streptomycin have also been effective on occasion in staphylococcal infections which have been generally unresponsive.

In mixed infections, such as peritonitis, penicillin and streptomycin, in my own experience, are the agents of choice. When mixed infections occur in the pulmonary system, the choice of agent is generally dependent upon the microorganism isolated.

There is no fixed rule for combinations of antibiotics that will definitely be synergistic or

TABLE 4

Combinations of Antibiotics

Infections noted below generally require two antibiotics (or two antibacterial agents):

Infection	*Antibiotic or Drug*
Tuberculosis	Streptomycin, dihydrostreptomycin and PAS or isoniazid
Brucellosis	Streptomycin and one of the tetracycline group Streptomycin and erythromycin (recent data)

(In the following infections in vitro sensitivity tests are particularly important)

Infection	*Antibiotic or Drug*
Bacterial endocarditis (enterococcal)	Penicillin and streptomycin or dihydrostreptomycin
Pneumonia (Klebsiella or Friedländer's)	Streptomycin and one of the tetracycline group or chloramphenicol
Severe pseudomonas infections	Polymyxin B and streptomycin Streptomycin and tetracycline or chloramphenicol
Resistant staphylococcal infections (to penicillin)	Erythromycin alone. But if endocarditis is present, erythromycin and chloramphenicol or erythromycin and bacitracin, occasionally penicillin and streptomycin, occasionally penicillin and the tetracycline group
Severe proteus infections	Streptomycin and one of the tetracycline group or chloramphenicol One of the tetracycline group or chloramphenicol and furadantin or one of the soluble sulfonamides
Mixed infections:	
Peritonitis	Penicillin and streptomycin or dihydrostreptomycin
Pulmonary and urinary tract infections	Dependent on in vitro sensitivity tests

If there is allergy to penicillin, substitute erythromycin for penicillin in above combinations.

antagonistic, hence the need for definitive bacteriology and in vitro sensitivity studies remains for the selection of the proper agent or combination of agents.

IV. SIDE-EFFECTS OF THE ANTIBIOTICS*

Although complications in the course of antibiotic therapy are relatively infrequent when compared to the tremendous widespread use of these agents and the benefit derived, nevertheless such comparative statistics find little application in the treatment of any one patient. Emphasis, therefore, must be placed on these reactions and their severity. This is not meant to disparage or discourage the proper use of the antibiotics, but to bring attention to the need for prevention of such complications and the necessity for the ever discriminating use of these potent agents.

The complications of antibiotic therapy may be classified as follows:

1. Innate toxicity of the antibiotics.
2. Complications incident to the host's response to antibiotic therapy.
3. Host complications incident to the response of the microörganisms.
4. What we as physicians can do in regard to these reactions, particularly sensitivity reactions.

INNATE TOXICITY OF THE ANTIBIOTICS

Penicillin. There is no innate toxicity in the ordinary therapeutic dose. In excessively concentrated solutions, such as 5,000 to 10,000 units per ml., when applied to exposed tissues, as for example to brain tissue, it can produce focal or generalized convulsions. If 20 to 30 million units of penicillin is given intravenously in approximately 5 minutes, convulsions and death may be produced. Interestingly enough, the concentration in the blood following this dose is in the vicinity of 5,000 units per ml.

Streptomycin and dihydrostreptomycin. Ototoxicity is the main difficulty here. Streptomycin most frequently affects the vestibular branch of the eighth nerve, particularly if given in doses of 2 to 3 Gm. per day over a 3- to 4-week period. Dihydrostreptomycin is more toxic to the auditory branch of the eighth nerve. Here, also, large doses are more inclined to produce this toxicity. Once the auditory damage has occurred it is generally irreversible. It is well to bear in mind that the vestibular loss due to streptomycin may be a permanent affair and that the patient improves by accommodating for this by locomotion and visual acuity. By discontinuing the streptomycin at an early enough stage the vestibular damage will usually reverse itself. With the usual dose now given in tuberculosis, 1 Gm. twice a week, these difficulties are infrequent. However, it is best to interchange streptomycin and dihydrostreptomycin on alternate months or to use a combination of streptomycin and dihydrostreptomycin for therapy. Nephrotoxicity to the streptomycin-dihydrostreptomycin group usually occurs when high doses are used. A measure of the blood urea nitrogen is very helpful in estimating how high the level of this agent may be when renal insufficiency is present, since the level of this antibiotic usually parallels the rise in blood urea nitrogen. In therapeutic doses no adverse renal effect is usually noted, unless preëxisting renal disease is present.

Tetracycline family. We now have chlortetracycline, oxytetracycline, and tetracycline, and their most common adverse effects are nausea, emesis, and diarrhea. In the anorectal syndrome, as described by Manheim, one finds in the order of frequency: pruritis, multiple fissures, ulcerative proctitis, abscess with fistula, ulcers of the rectum, and ulcerative colitis. These side-effects will vary in individuals, some of whom will have none in a prolonged course, whereas others may have it after taking just 1 or 2 capsules of these agents. As of the present, in the anorectal syndrome, the lowest incidence seems to occur with tetracycline, next with chlortetracycline, and highest with oxytetracycline. Many things have been tried for these complications. Of most apparent help has been the simultaneous administration of potent vitamin B-complex, buttermilk or yogurt. Hepatoxicity has been noted with chlortetracycline. To avoid this complication it has been suggested that no more than 2 Gm. in divided doses be given intravenously per day and, if given simultaneously orally and intravenously, no more than 1 Gm. per day be given by the intravenous route. Oxytetracycline may be implicated in the same fashion. In the presence of liver damage the tetracycline group should be used with care. Caution should also be observed in using the tetracycline group when existing renal difficulty is known or observed.

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* This section in part has been published in collaboration with Dr. John P. Nasou.

Chloramphenicol. Many of the side-effects noted under the tetracycline group are shared by chloramphenicol but to a much lesser degree. In my experience there is a much lower incidence of nausea, emesis and diarrhea. Potentially this agent may produce a depressive effect on the bone marrow with granulocytopenia or aplastic anemia, and about 75 cases have been recorded in the literature from the many thousands of individuals who have had this antibiotic. Nevertheless, chloramphenicol is still the primary choice in typhoid fever. When other agents have been tried unsuccessfully and the microörganisms are sensitive to chloramphenicol, one should not hesitate to use it. As mentioned earlier, erythromycin and chloramphenicol at the present time may be our most effective combination for resistant staphylococcal infections. When chloramphenicol is used, blood cell counts should be made at regular intervals.

Erythromycin. To the present time there appears to be no innate toxicity, except for occasional abdominal cramping in ambulatory patients. This cramping is generally relieved by the use of the belladonna-like drugs. Occasionally ambulatory patients will also have some frequency of bowel movements.

Bacitracin. This antibiotic, though not in general use, does have a place when other agents have been tried and found to be ineffective, particularly if the microörganism is sensitive to it. This agent is nephrotoxic and can produce irreversible damage in this respect. Generally speaking, the total daily intramuscular dose should not exceed 160,000 units given in 4 injections.

Polymyxin. This agent also may be nephrotoxic and may occasionally cause parasthesias. The daily dose should not exceed 2.5 mg. per Kg. given intramuscularly in divided doses.

Viomycin. One of the antituberculous agents, this is more nephrotoxic and ototoxic than streptomycin or dihydrostreptomycin and, in addition, if used in doses of 2 to 3 Gm. per day, can produce severe electrolyte disturbances. However, it is available as a replacement therapy for tuberculosis, and one can give 2 Gm. twice a week intramuscularly when tubercle bacilli are resistant to the available agents.

Neomycin. By injection of more than 1 Gm. per day this is probably the most nephrotoxic of the available antibiotics and also is strongly ototoxic. However, here again one should not ignore it when other agents are not successful. An example of this is staphylococcal infections, in which it may be helpful. This agent by oral route is excellent for preoperative preparation of the bowel, particularly in combination with erythromycin.

COMPLICATIONS INCIDENT TO THE HOST'S RESPONSE TO ANTIBIOTIC THERAPY

Sensitivity reactions. The sensitivity reactions to antibiotics have attracted the greatest attention of all, probably because they are the least predictable and commonest of the antibiotic complications. We may ask what are some of the factors operating in the production of antibiotic sensitivity.

First, and probably most important, is a sensitizing exposure. The history in most of the patients with allergic reactions confirms that there is usually previous contact with the antibiotic.

Second in importance is the presence of an allergic constitution on the part of the patient. Allergists estimate that 15 per cent of the population have a predisposition to allergy. Whether an allergic constitution predisposes to antibiotic sensitization or not remains an unsettled problem.

Third comes the antibiotic preparation and route of administration. Generally, local application, particularly troches and lozenges, is most likely to produce sensitization, and parenteral administration is the next most frequent cause. The oral route is least likely to favor the production of sensitivity. Certain preparations also are more allergenic than others. The iodide derivative of penicillin, marketed as Neo-Penil, has especially been responsible for many severe reactions.

The fourth is cross reactions with the products of other fungi. There are many cases of penicillin sensitivity in which there is no history of previous contact with the drug. It has been proposed that these patients are reacting to the allergy produced by previous fungus infections, such as epidermophytosis. This concept has been strengthened by the recurrence of "id" eruptions in some patients receiving antibiotics.

Skin manifestations. The true incidence of cutaneous allergic phenomena due to penicillin is difficult to ascertain. The noted incidence, as has been reported in various series, ranges from 2 to 10 per cent, the majority tending toward the lower figure. Many patients probably have skin reactions of a minor character, don't associate them with the antibiotic, and don't report them to their physician.

The 3 main types of skin reactions due to penicillin, in order of their frequency, are (1) urticaria, (2) vesicular reactions, and (3) exfoliative dermatitis. Other reactions occurring less frequently include erythema, maculopapular rashes, and erythema nodosum or multiforme. Exfoliative dermatitis may be of such severity as to cause death. These reactions can be immediate or delayed. It is well to bear in mind that with these allergic reactions one can have changes in the electrocardiogram which will simulate coronary arterial changes. These will reverse themselves upon remission of the allergic phenomena.

Streptomycin is second only to penicillin in causing skin reactions. These are frequently mild maculopapular reactions which may escape detection, but any of the skin reactions mentioned under penicillin may occur. Streptomycin allergies cross-react with dihydrostreptomycin.

Skin reactions of an allergic character are rather rare and mild with the tetracycline group and chloramphenicol. The few that have been reported occur as fixed eruptions or urticaria and promptly subside upon cessation of therapy.

So far, skin reactions have not been noted with erythromycin.

This type of sensitization has also been felt by the medical and nursing personnel of hospitals and by individuals engaged in the manufacture of antibiotics. Care should be taken in mixing and administering antibiotics to avoid contact with the skin.

Anaphylaxis. Anaphylaxis is perhaps the most alarming complication. It is usually an immediate reaction (a few seconds to a few hours after administration), and is characterized by any or all of the following: urticaria, angioneurotic edema, asthma, labored breathing, shock, cyanosis, unconsciousness.

Death may occur from 2 minutes to several hours after the onset of symptoms.

The first fatality from anaphylaxis due to penicillin was reported in 1946, and the second fatality was not reported until 1949. In the first 9 years that penicillin had been in use, these were apparently the only 2 fatalities noted in the literature. In the next 1½ years 15 additional anaphylactic fatalities were reported.

More fatalities have probably occurred but have not been reported in the literature. Anaphylaxis has been reported as a result of practically all forms of penicillin and by every route of administration. The iodide salt of penicillin, penethamate hydriodide or Neo-Penil, is especially dangerous, as noted before. In the 6 months after its introduction and while not as yet in widespread use there were apparently 14 severe anaphylactoid reactions resulting in 3 deaths.

Anaphylactic reactions are rarely seen with the other antibiotics. There are several cases reported, but the character of the reactions leaves some doubt that they were truly anaphylactic in nature.

Serum sickness. The third major sensitivity complication of antibiotic therapy is "serum sickness." This does not differ in any respect from the classical form; that is, the reaction appears 8 to 12 days after administration of the drug, is characterized by fever, articular pains, dermal eruptions (usually urticaria), and lymphadenopathy. The constitutional reaction may be mild or severe, and symptoms may persist for many months.

Other reactions. Adelson has remarked on the discovery of hypersensitivity in infants treated with penicillin. He found that, if treatment is continued, vascular changes of the periarteritis nodosa type are produced. Walsh and Zimmerman examined the blood and bone marrows of 6 patients with serum sickness due to penicillin and found LE factor in the plasma and LE cells in the bone marrow of the 3 patients with the most severe reactions. On the basis of these and other reports it seems probable that sensitivity reactions to the antibiotics may have a triggering effect in certain patients with a prediposition to collagen vascular disease.

Metabolic alterations and vitamin deficiencies. The question has frequently been raised as to whether antibiotic therapy causes vitamin deficiencies. Much of this speculation has been prompted by the similarity of some of the oral and skin lesions caused by the antibiotics to those of vitamin deficiencies. Two mechanisms have been postulated by which this could happen:

1. The antibiotic may enter the biochemical cycles which involve vitamins and cause competitive inhibition; or
2. the bacteria in the bowel responsible for elaborating certain of the vitamins may be destroyed by the antibiotics, with consequent avitaminosis.

We have no specific evidence that either of these processes plays an appreciable role in antibiotic therapy in man.

When ordering antibiotics the physician should consider their place in the total management of the patient. Oral antibiotics are adsorbed by aluminum hydroxide and, therefore, are of no benefit when it is also being administered. It has been shown that dihydrostreptomycin, terramycin, and aureomycin are inactivated by cation exchange resins. Not only is the patient receiving both by mouth deprived of the antibiotic effect, but the efficiency of the resins is impaired. The diagnosis of jaundice can be confused by broad spectrum antibiotic therapy. The organisms which alter the bile pigments in the intestine are suppressed and, therefore, fecal and urinary urobilinogen may be absent.

HOST COMPLICATIONS INCIDENT TO THE RESPONSE OF MICROÖRGANISMS DURING ANTIBIOTIC THERAPY

From the beginning of antibiotic history it was noted that the balance of the patient's flora was altered in the course of therapy. When penicillin was administered in lozenge form, the flora of the mouth was seen to change from a predominantly Gram-positive to a predominantly Gram-negative one. Opposite changes were observed in the flora of the bowel when streptomycin was given orally. From these early observations have emerged several clinical entities:

Staphylococcal diarrhea has recently occupied the spotlight. This complication may follow short- or long-term therapy with the broad spectrum antibiotics, particularly oxytetracycline. With the suppression of the coliform group, resistant staphylococci in the intestinal tract multiply and become the predominant organisms. The ensuing symptoms are comparable to a very severe episode of old-fashioned staphylococcal food poisoning, i.e., fever and diarrhea early in the course, and later dehydration, shock, oliguria, and azotemia. Death, if it occurs, is due to toxemia, not septicemia. It has been observed that this complication could be prevented, if erythromycin is administered when staphylococci become the predominant organism in the stool. Cessation of therapy with the broad spectrum antibiotics early enough may be adequate to prevent this. It is important to have a suspicion of what is occurring and to make the laboratory aware that one is looking for staphylococci and that the proper medium is used. Smears made of the stool specimens will show Gram-positive cocci and give a hint as to what is occurring. This syndrome can go on to the development of severe enterocolitis or a pseudomembranous colitis. It is not sufficient to give antidiarrheal agents. These may suppress the diarrhea, but if the tetracycline agent is continued the staphylococci continue to multiply; the toxin continues to be produced and to exhibit its overwhelming effect.

A great variety of reactions have attended antibiotic therapy which have been attributed to fungus infections. Some of these are thrush, black hairy tongue, vaginitis, pruritus ani, proctitis, prolonged diarrhea, and pulmonary disease. A diagnosis of moniliasis is usually made in such cases on the basis of smears or cultures from the lesions. Most of these are the result of topical use of the antibiotics. Current opinion is that many of these lesions are wrongly attributed to fungus infections, the positive smears and cultures merely being a reflection of altered ecology common to patients receiving antibiotics and not true infection.

Superinfection by a new organism in the course of treatment of another infection is not a rare phenomenon, if we are to judge by the number of reports in the journals. The organisms most often involved are *Hemophilus influenzae*, *Klebsiella pneumoniae*, *Proteus vulgaris*, *Escherichia coli*, *Pseudomonas aeruginosa*, and *Serratia marcescens*.

WHAT PHYSICIANS CAN DO TO PREVENT AND CONTROL REACTIONS, PARTICULARLY SENSITIVITY REACTIONS, DUE TO PENICILLIN

Every physician who in the course of his practice utilizes antibiotics should be prepared to discover the patient with sensitization to antibiotics before using them, and, if a reaction should occur, to recognize and treat it vigorously. He can do this with little extra effort, as he should always obtain a history of personal and familial allergy and specifically ask about reactions to previous antibiotic therapy. It is important at times to describe what type of reaction may have occurred, since the patient may not understand what is meant by the reaction.

It will be a rare situation when penicillin, for example, cannot be substituted by another antibiotic. However, if it has to be used in a questionable case, then a scratch test can be made (1 drop of 5,000 u/ml., and wait 5 to 10 minutes). If this is negative, one can do an intradermal test (0.2 ml. of 5,000 u/ml., and wait 2 to 5 minutes). Furthermore, in a case in which sensitivity to penicillin is suspected, the physician should accompany its administration with an antihistaminic agent or cortisone; the soluble penicillin rather than the depot form should be used for the first dose, or the oral route could be used preferably. We should also keep in mind that some individuals who reacted once to an antibiotic may not react on its subsequent use.

It is also the duty of the physician to prevent sensitization. The cardinal guidepost in the prevention of sensitization and reactions to the antibiotics is not to use the antibiotics promiscuously.

Penicillin should not be given to patients in a comatose state, nor to those unable to give an adequate history. Individuals sensitive to penicillin, as I mentioned above, should be made aware of its meaning and should carry an identification card with this information.

Several parenteral preparations of penicillin have appeared on the market which contain an antihistaminic. It is questionable and unlikely that concomitant administration of an antihistaminic will prevent delayed sensitization.

The treatment of reactions to antibiotics must, of course, be tailored to the individual reaction. In all cases the antibiotic should be discontinued immediately. Mild reactions will respond to this measure alone, but if deemed necessary an antihistaminic drug may be administered in therapeutic doses throughout the day. If the reaction is severe, cortisone, 300 mg. in divided doses, may be given in the first 24 hours, with a gradual tapering off of the dose as improvement is noted, and meanwhile the antihistaminic drug should be continued. Anaphylactic shock must be treated rapidly and vigorously with intravenous epinephrine, aminophylline, and positive pressure oxygen.

V. The Hormones, Cortisone and ACTH in Relation to Infectious Diseases and the Use of the Antibiotics*

At this point I should like to go on to another factor which recently has accentuated the problem of infections. Cortisone is being used with increasing frequency in all types of diseases. When one realizes that cortisone is commonly employed in the treatment of skin diseases, for example, and that skin diseases are an important source of hemolytic staphylococcal infections, the importance of the influence of cortisone on infectious processes becomes quite evident. In practically all instances of experimental infections of animals, including viral infections, the effects of cortisone were deleterious as evidenced by the increased instance of bacteremia and greater morbidity and mortality. Larger doses of cortisone were found to nullify the prophylactic effect of streptomycin, chlortetracycline, chloramphenicol, neomycin and polymyxin in experimental animal infections. Small doses of cortisone did not demonstrate such an effect. In addition to these actions reported of cortisone it produces a pronounced alteration in the usual signs and symptoms associated with infectious diseases. During cortisone administration in infectious diseases one cannot rely upon the signs and symptoms to give a true picture.

Under certain circumstances cortisone and ACTH may be lifesaving to the patient. In the acute toxic stage of typhoid fever, overwhelming pneumococcal pneumonia, or fulminating meningitis, tuberculous pneumonia or meningitis, particularly where block has developed, cortisone in conjunction with adequate chemotherapy may be the factor which will be lifesaving.

The complexity of this problem of infectious disease, cortisone, and the antibiotics is well illustrated by a case of staphylococcal septicemia and endocarditis secondary to cortisone-treated exfoliative dermatitis due to penicillin.

Illustrative Case

The patient was a 40-year-old Negress admitted to our hospital with a 2-day history of swelling and breakdown of the skin about her face, neck, breasts and perineum, which was obviously an exfoliative type of dermatitis. Three weeks prior to admission she had been admitted to another hospital and given penicillin while in a semicomatose state. She had been an epileptic for 8 years. Penicillin was given for a small ulcer on her left leg, and 10 days prior to admission the patient received a second injection of penicillin. Additional history on this admission revealed that the patient had 2 similar but much less severe reactions following each of the 2 injections of penicillin given in the past 2 years. Upon the appearance of the present reaction the patient had been placed on 25 mg. of cortisone orally 4 times a day.

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The essential points on physical examination revealed a blood pressure of 120/70, temperature of 102.4°F, pulse rate of 96, and respiratory rate of 30. The patient was well-developed and had obvious, severe exfoliative dermatitis which was thought to be due to penicillin. There was a small healing ulcer, 1 cm. in diameter, over the left anterior tibia. The heart was not enlarged, the sounds were of good quality, and no murmurs were noted.

Essential laboratory findings were: a white blood cell count of 7,200, with 37 segmented forms, 16 band cells, 38 lymphocytes, 3 monocytes, and 6 eosinophils. The hematocrit was 47 mm. Serologic test for syphilis was negative. The urinalysis revealed 1 plus albumin and 8 to 10 white cells per high power field. The electrocardiogram was normal. Three blood cultures taken at this time were negative. (I routinely take blood cultures on patients receiving cortisone when potential infection might occur.) Figure 1 shows the course and the various therapeutic agents used. Over the first week the cortisone was increased to a maximum dose of 200 mg. every 8 hours. The patient received 250 mg. of oxytetracycline orally every 6 hours for a low-grade urinary tract infection. The skin lesions were treated nonspecifically, but subsequently streptokinase-streptodornase jelly was applied directly to the lesions and used as a spray over accessible areas. Considerable improvement was noted in the skin lesions and the temperature during the first week on therapy. However, on the eighth hospital day the temperature was elevated to 102°F, and a prominent aortic systolic murmur was heard for the first time. Blood cultures at this time were positive for hemolytic *Staphylococcus aureus*. It is obvious that despite the apparent improvement in the skin and the drop in temperature the cortisone had camouflaged the picture and that during this apparent improvement a depression in immune response had occurred and staphylococci had invaded the system to produce septicemia and endocarditis.

In vitro sensitivity tests showed that the microörganism was sensitive to erythromycin, chloramphenicol, bacitracin, and penicillin. Susceptibility of the microorganism to penicillin was an ironic situation, since this could not be used because of the reaction to penicillin. A marked resistance was noted to chlortetracycline, oxytetracycline, tetracycline, and streptomycin. At this time, the white blood cell count was 10,700 and the hematocrit 36 mm. Here is another example of the invasiveness of the infection, as illustrated by the drop in the hematocrit. The oxytetracycline was discontinued, and erythromycin, 400 mg. every 6 hours, was given orally. Cortisone was gradually discontinued over the next 4 days. A dramatic temperature response occurred initially to the erythromycin. Over the following week, however, the temperature began to rise progressively and the blood cultures continued positive for the hemolytic *Staphylococcus aureus*, despite an increase in the dose of erythromycin, as noted in the figure. During the third week of therapy streptomycin was added for 2 days with the possibility that a synergistic effect might be exerted. However, no change occurred. Bacitracin, which showed evidence of synergy with erythromycin by in vitro tests, was then substituted for streptomycin, again without any change in the clinical course, and the blood cultures remained positive. The white blood cell count by this time had reached 19,300, and the hematocrit had fallen to 26 mm. The dose of erythromycin was increased to 1 Gm. every 6 hours intravenously, and chloramphenicol was substituted intravenously for the bacitracin. Following this regimen the patient became afebrile. Blood cultures at this time were reported negative initially but grew out 6 days later, which was 3 days after the patient's death. There was a definite suppressive effect by the combination of erythromycin and chloramphenicol. This clinical course might have continued, but 2 days prior to death the patient became comatose and oliguric. There was some scleral icterus. The blood pressure fell to shock level, and the patient began having convulsive seizures involving the head and the left arm. Although brain abscess might have been a factor, it was felt that the shocklike picture was more likely due to adrenal insufficiency secondary to the cortisone administration. At this time 25 mg. of ACTH was given intramuscularly and intravenously every 4 hours. In spite of the administration of ACTH, whole blood, and vasopressor drugs the patient died on the twenty-third hospital day.

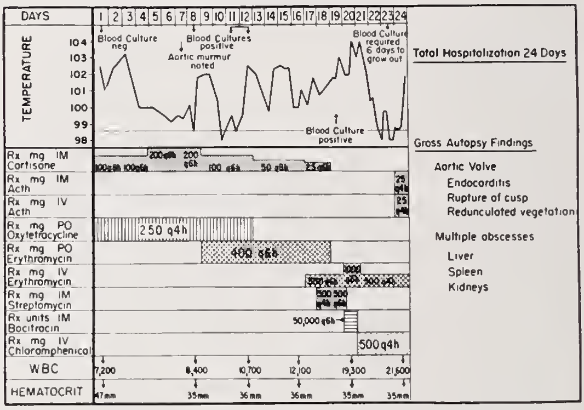

Fig. 1. Salient data of a case of staphylococcal septicemia and endocarditis secondary to cortisone-treated exfoliative dermatitis due to penicillin.

Postmortem examination revealed the skin lesions to be clean with moderate reëpithelialization. The sclerae were icteric. The heart, lungs, and adrenals appeared grossly normal. On examination of the valves of the heart, endocarditis was present on the aortic valve with rupture of a cusp, and a small pedunculated vegetation was also present extending out from the aortic valve. The remainder of the valves were normal. There were multiple abscesses throughout the liver, spleen, and kidneys. Unfortunately, the brain was not examined. Interestingly enough, microscopic examination revealed, in addition to the above findings, delipidization of the adrenals. Pericholangitis was also present.

Here is an example of the complex problem of penicillin sensitization, cortisone administration, and the development of resistant staphylococcal infection ending fatally because of the indiscriminate use of penicillin.

I have had experience with 3 additional unreported cases of patients known to have developed fatal staphylococcal infections while under the influence of cortisone.

As already noted and reëmphasized in this case report, penicillin should not be given to patients in a comatose state nor to those unable to give an adequate history.

Emphasis again should be made that individuals sensitive to penicillin should be aware of its meaning and should carry an identification card with this information.

Cortisone should be used with caution in patients with infectious diseases or those in whom the possibility of infection exists. It should be reëmphasized that the clinical picture under cortisone treatment is not a reliable guide to the progress of infectious disease. Prophylactic chemotherapy in these circumstances should be maximum, and blood cultures should be made periodically.

ACTH should be used with cortisone to maintain adequate adrenal function.

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EDITOR'S NOTE: In this series the bibliography will be presented more fully than customary so that reference material can be readily identified.

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PHYSIOLOGIC MURMURS IN PREGNANCY: A REËMPHASIS

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DURING late pregnancy and in the early postpartum state systolic murmurs are common. They are often heard over the base of the heart, and are usually without clinical importance. This lack of significance is well recognized.[1-4] Less commonly a diastolic murmur is heard and, as it should be, is accepted with less complacency. Most physicians consider it indicative of heart disease.

Over the years, obstetricians and internists have alluded to physiologic or functional diastolic murmurs in pregnancy, but in general these observations have gone unnoticed or unheeded.[5-11]

During the past year 2 cases have impressed us with the need for clearer definition of diastolic murmurs in pregnancy and have demonstrated that such murmurs are not pathognomonic of heart disease.

REPORT OF CASES

Case 1. A 15-year-old, primiparous colored girl developed fever, "stiffness" of her neck, and fainting about 30 hours after an uncomplicated hospital delivery. The following day she was seen in consultation, when the significant findings were fever, tachycardia, tachypnea, normal blood pressure, moderate rigidity of the neck, and suprapubic tenderness associated with a foul vaginal discharge. A grade IV (on the basis of I to VI grading) harsh systolic murmur and a high-pitched diastolic murmur were heard in the right and left second intercostal spaces, close to the sternum. The diastolic component was transient and changed in quality over a few hours. No antibiotic treatment had been given ante- or postpartum.

With the exception of periodic epistaxis, the previous history was entirely negative, and examination of the antepartum clinical record added no useful information.

With a focus of infection, persistent fever, anemia, leukocytosis, and changing murmurs as evidence, bacterial endocarditis was considered likely, and the patient was given penicillin. At that time blood cultures had not been reported. The spinal fluid, which was not remarkable on microscopic and chemical examinations, was reported to show no growth.

In 3 days the patient became afebrile and asymptomatic, and no murmurs were heard. Blood cultures before and during treatment were negative.

In view of the rapid improvement and the failure of any other evidence of heart disease to develop, the diagnosis was changed to septic endometritis and aseptic meningismus, without heart disease, and treatment was discontinued on the fourth day. On physical examination 9 months later there were no cardiac abnormalities.

Case 2. A short time after this, a second patient was seen on the obstetric service, and again loud systolic and diastolic murmurs were heard in the aortic area. This patient, too, was febrile but did not appear as ill as the first patient had. Alerted by our recent experience, treatment was withheld, and the patient was transferred to the medical service. Examination on the medical unit about an hour after the murmurs had been clearly heard disclosed no murmurs.

A limited survey of ante- and postpartum patients (including the 2 above) strengthened our impression that systolic murmurs in this group are commonplace. In addition, several instances of diastolic murmurs of significant intensity, i.e., grade II or more, were encountered. Historical, physical, laboratory, and follow-up evaluation leads us to consider these murmurs functional. Because they are so transient no effort was made to determine incidence, but they are not rare.

The following characteristics apply: The usual location of the murmur is over a coin-sized spot in the right or left second intercostal space, close to the sternum. Frequent examinations may find the murmur modified in character or position, and, indeed, it may disappear altogether. Various maneuvers, such as changing position or a Valsalva, may modify it. Moderate pressure with the stethoscope will often obliterate it, and occasionally digital pressure in an interspace above or below will do the same. The diastolic component may vary from a low-pitched, soft murmur to a whining souffle. A superficial thrill is sometimes felt in the area, and at times a pulsating vessel is seen. When the murmurs are continuous, and often they are, there is systolic accentuation (figure 1).

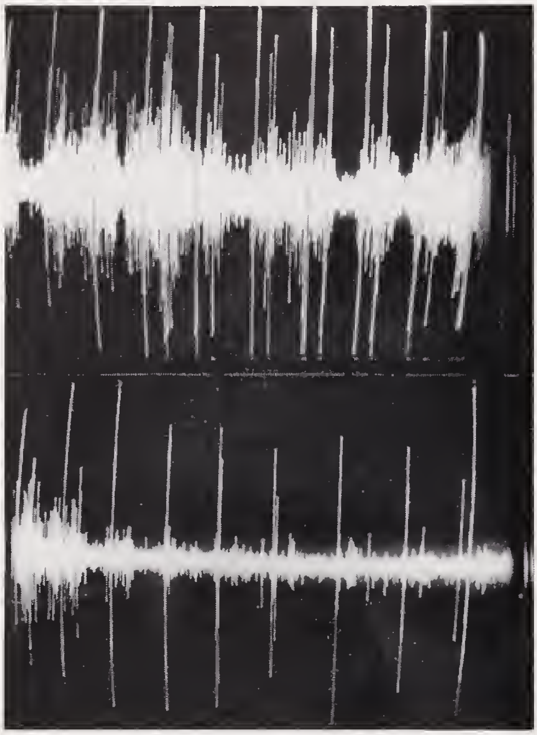

FIG. 1. Phonocardiographic tracing of a to-and-fro murmur in a 32-year-old postpartum patient. There is systolic accentuation. Pressure with the diaphragm obliterates the murmur.

Certainly there must be many causes for cardiac and extracardiac murmurs in pregnancy. Both altered hemodynamics and mechanical (anatomic) variables operate.[12-13] Much remains to be explained in regard to exact mechanisms, but it is our impression that many of the continuous murmurs reflect the increased vascularity of the lactating breast (figure 2).

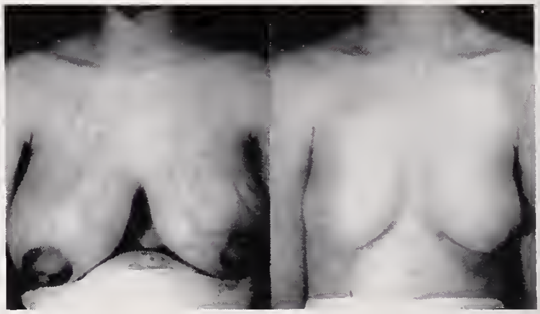

FIG. 2. Infra-red photographs of the lactating and nonlactating breast in subjects of the same age, race, and habitus.

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SPONTANEOUS HYPOGLYCEMIA DUE TO ISLET CELL TUMORS OF THE PANCREAS

Report of a Case due to Multiple Adenomas*

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THE discovery of insulin in 1921 constituted the final confirmation that hypofunction of the islands of Langerhans was the cause of diabetes mellitus. The principle of hypofunction of an endocrine gland with existence of a corresponding clinical state was well established with regard to hypophyseal, thyroid, adrenal and sex glands at the time of isolation of the insular hormone. The opposite of hypofunction of these glands had also been well described. It seemed logical that a clinical syndrome corresponding to the reverse of diabetes mellitus was soon to be discovered. In fact, only 3 years after isolation of insulin Harris[1] postulated the existence of such a condition. It remained for Wilder et al[2] to establish this clinical entity by discovery in a patient with spontaneous hypoglycemia the presence of islet cell carcinoma with metastases. Bio-assay with extracts of hepatic metastatic nodules produced hypoglycemia in normal animals. This fact proved the presence of insular hormone in the metastases. The disease has remained relatively rare since its original discovery in 1927. A complete review of the literature up to 1948 revealed a total of 264 cases of spontaneous hypoglycemia due to islet cell tumor.[3] Since that time few additional cases have been recorded.

Spontaneous hypoglycemia as a clinical entity is relatively unknown among practicing physicians. This fact, in addition to the recent occurrence of a case in which surgical removal of 2 adenomas was curative of serious symptoms, has prompted us to review this subject briefly and to report our case.

Spontaneous hypoglycemia may be defined as a disease in which an abnormal physiologic state is caused by excessive endogenous secretion of islet cell hormone. This insulin may originate in an adenoma, an adenocarcinoma, or in diffusely hyperplastic and hyperfunctioning islands of Langerhans. Symptoms are mild, moderately severe, or severe, and are identical to those seen in the human subject after excessive exogenous administration of insulin. These symptoms are dramatically and rapidly relieved by the administration of parenteral or oral glucose. The condition has variously been called "spontaneous hypoglycemia," "hyperinsulinism," and "organic hypoglycemia."

PATHOLOGIC FEATURES

Anatomic abnormalities can be classified as pancreatic and extrapancreatic. The pancreas reveals the presence of an adenoma in 78 per cent of the cases.[3] The adenoma may be single or, less frequently, multiple. It is more commonly located in the tail than either in the head or body of the organ. It is highly vascular, soft, and bluish red. It may be located on the surface or embedded within the substance of the organ.[4] Another 12 per cent of the cases likewise show a well encapsulated adenoma, but invasion of the capsule with typical beta cells is present, thus fulfilling one of the criteria for malignancy. However, the clinical course of this group has been benign. Therefore, one may say that a total of 90 per cent of the reported cases are adenomatous and benign.[3] This fact has important therapeutic implications. The microscopic picture of the adenoma is that of beta cells with specific granules. Adenocarcinoma is found in 9.3 per cent of the cases and ultimately causes death because of either hypoglycemia or metastases. Diffuse hyperplasia with hypertrophy of the pancreatic islets has been reported with relative infrequency but may be more common than suspected.

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Extrapancreatic abnormalities are chiefly limited to the brain, but also appear in the liver, kidney and, in the case of adenocarcinoma, in various structures and organs which are affected and invaded by any carcinoma. The liver may show normal or increased deposits of glycogen. Excessive deposits may also be seen in the renal convoluted tubules. The brain is the site of the most serious damage seen in this disease. There may be cerebral edema, perivascular infiltration, diffuse microscopic or macroscopic hemorrhages, secondary glial proliferation, and cortical atrophy. The basal ganglia are frequently affected and may reveal atrophy with clinically severe neurologic manifestations.[5] The disease may cause cerebral thrombosis and hemorrhage.[6]

Functional Abnormalities

The mode of action of insulin has not been entirely clarified to date. However, it is certain that insulin causes lowering of the level of blood glucose.[7] "Organic hypoglycemia" is produced by excessive and probably continuous secretion of endogenous insular hormone. Evidence for this assertion is indirect but conclusive.

Bio-assay with extracts made of a carcinomatous hepatic nodule removed at autopsy from a patient by Wilder and associates produced lowering of blood glucose in the normal experimental animal. This metastatic nodule was microscopically indistinguishable from its primary pancreatic focus.[2]

Resection of an islet cell adenoma from subjects having the classical clinical syndrome of hyperinsulinism resulted in complete cure of the illness in a number of instances.[3]

Resection of hyperfunctioning insular adenocarcinoma caused temporary cure. Subsequent appearance of metastases morphologically identical to the resected primary tumor resulted in reappearance or aggravation of the clinical syndrome.[3] This fact is further evidence that insulin is secreted by the adenocarcinoma and its metastases.

Symptoms produced by the islet cell tumor are identical with those caused by parenteral administration of insulin. A lowered level of blood glucose is present in the disease under discussion as well as in the usual typical insulin reaction. Parenteral administration of glucose elevates the lowered blood glucose and relieves the clinical symptoms in both instances.

Temporary hyperglycemia is frequently seen after resection of a functioning tumor. After several days, hyperglycemia and glycosuria subside and islet cell function presumably returns to normal.[8] This fact suggests that anatomically normal islet cell tissue is in a state of functional depression due to excessive insulin of tumor origin.

Further physiologic considerations are important. It must be assumed that secretion of insulin in the normal human organism is essentially intermittent and is stimulated by the ingestion of food.[7] Alimentary hyperglycemia is thereby efficiently counteracted and homeostasis restored. The hyperfunctioning insular tumor, on the other hand, must be assumed to have a degree of independence from various regulatory mechanisms. In fact, its secretory activity may be continuous and independent of alimentary hyperglycemia, because symptoms occur after long periods of abstinence from food. A tumor by its nature sets itself apart and defies restraints on the part of the host.

The physiology of the brain is of particular importance in "organic hyperglycemia." It is a well known fact that nerve cell tissue is sensitive to changes in the blood content of glucose, which is the chief source of energy, below normal levels.[7] Hypoglycemia decreases brain cell function and initiates many, if not all, symptoms encountered in this disease.

SYMPTOMS

The onset of the illness may be acute but is usually insidious. Mild symptoms may be present for months or even years. Depending on the size and functional activity of the insular tumor, hypoglycemic reactions may be mild or severe. It should be pointed out that the size of the tumor does not necessarily run parallel to secretory activity. However, increase in size or function will cause progression from initially mild symptoms to finally severe insulin shock and possibly death. The adenoma secreting relatively small amounts of insulin will produce hypoglycemic shock only after prolonged periods of starvation. A very active adenoma, on the other hand, may keep a patient in continuous hypoglycemia with shock.

Hypoglycemic symptoms essentially reflect disturbance of the autonomic as well as the central nervous system.[7] There are palpitation, tachycardia, hunger sensation, perspiration, nervousness, flushing or pallor of the skin, trembling, elevation of the blood pressure, and circumoral pallor. These symptoms are identical to those caused by parenteral adrenalin. Administration of dextrose will relieve them rapidly and within a matter of a few minutes. The untreated attack may subside spontaneously. Internal mechanisms, such as secretion of adrenalin and adrenal cortical steroids, cause gluconeogenesis by release of hepatic glycogen and an increase in protein conversion to carbohydrate. However, homeostatic mechanisms may not keep pace with release of endogenous insulin, and serious symptoms of insulin shock may appear. They consist of psychiatric manifestations such as anxiety, apprehension, restlessness, drowsiness, emotional instability, or other psychotic deviations.[9] One may encounter neurologic symptoms and signs such as disturbance of vision and speech, hyperactive deep tendon reflexes, Babinsky's or other pathologic signs, muscular twitching, convulsions, coma, and finally death. Adequate treatment will dramatically relieve these symptoms and signs unless serious brain damage has occurred.[8] Attacks of insulin shock characteristically occur before breakfast or after marked physical or emotional activity associated with limited intake of food. The patient may or may not have experienced attacks of coma. He may have discovered that a readily absorbable carbohydrate relieves his complaints. Excessive intake in food and resulting obesity is frequently encountered A decrease in the number of attacks may parallel the increase in weight. Hyperinsulinism has been reported to subside spontaneously in one or two instances with diabetes mellitus ensuing. Degeneration of the insular adenoma may be the cause for this train of events.[3]

DIAGNOSIS

A certain knowledge of clinical endocrinology is helpful in order to avoid errors when establishing the diagnosis of this condition. Spontaneous hypoglycemia is well known to occur in other endocrinopathies. In general, it may not be difficult to recognize the classical case exhibiting symptoms of an insulin reaction in repeated attacks and good health between the attacks. After exclusion of other causes of hypoglycemia, the pursuit of Whipple's 3 main criteria[10] will establish an accurate diagnosis:

1. Symptoms of an insulin reaction, preferably with neurologic symptoms and signs, must be present in the subject suspected of having the disease.

2. The blood content of glucose must be down to or below 50 mg. per cent at the time of the clinical attack.

3. Intravenous administration of dextrose must produce almost instantaneous and dramatic relief from the clinical syndrome.

The easiest and surest way to produce an attack of insulin shock is to starve the subject for 24 to 36 hours while having 50 ml. of 50 per cent dextrose solution available in a syringe along with other pertinent supply in order to effect rapid intravenous injection in case of shock. The patient should be encouraged to be active during this provocative test. Presence of hyperfunctioning islet cell tissue invariably leads to hypoglycemic shock under these conditions. Further laboratory aid is the finding of abnormally low levels of blood glucose during the postabsorptive state. Glucose tolerance tests likewise have been widely employed. High, normal and flat glucose tolerance curves have been reported in known cases of insular adenoma.[8] It would appear that determination of this glucose tolerance curve does not materially add to the result obtained from the provocative starvation test. Furthermore, the glucose tolerance test may not lead to hypoglycemic shock in cases of mildly hyperfunctioning tumor in spite of prolongation of the test to 5 or 6 hours. Therefore, the test may contribute only false diagnostic security. The provocative fasting test should always be used in the suspicious case. It may be superfluous, on the other hand, or even too great a risk in the patient seen and successfully treated during a spontaneous attack provided the blood glucose level was appropriately low.

Differential Diagnosis

There are other diseases in which spontaneous hypoglycemia is encountered. Simmond's disease and Sheehan's syndrome are due to hypofunction of the anterior lobe of the hypophysis with secondary adrenal cortical depression and associated disturbance in carbohydrate metabolism. Addison's disease, i.e., primary adrenal cortical hypofunction, likewise shows occurrence of shock in many instances. Neurologic as well as severe hepatic diseases must be considered as causes for insulin shocklike attacks. Malingering and psychiatric deviations have been reported in association with insulin shock.[3] The syndrome called "functional hypoglycemia" deserves special emphasis because it has been confused with "organic hypoglycemia." In subjects with this disorder various ill-defined symptoms such as weakness, fatigue and hunger frequently occur 2 or 3 hours after meals, and the blood dextrose level may be in the neighborhood of 70 or even 60 mg. per cent. The glucose tolerance test is flat, and a late drop in the curve to 70 or 60 mg. per cent has been observed in these subjects. However, as Wilder[8] points out, no patient with this disorder has, even after prolonged starvation, ever succumbed to hypoglycemic shock, and intravenous administration of dextrose has produced a variable response. Furthermore, it can be stated that this syndrome commonly occurs in neurotic individuals. It is likely that the only "true" case of functional hypoglycemia occurs in a newborn infant of a diabetic mother. Maternal hyperglycemia is the probable cause of hyperplasia and hyperfunction of the infant's insular tissue.[4]

Treatment

Medical management of hyperinsulinism mainly consists of temporarily treating and preventing acute symptoms until a permanent cure can be obtained. Adrenalin has frequently relieved insulin shock by effecting release of hepatic glycogen.[7] However, its action is of short duration and may be insufficient in relieving the severe episode of shock and coma. "Aloxan diabetes" has been produced in the laboratory animal because of selective islet cell destruction by the drug. However, application of aloxan in the human subject with insular adenoma has been a failure.[11] Infusion of dextrose obviously must be used in treating recurring episodes. However, it may not always be sufficient in keeping abreast of an actively secreting tumor

Also, a diet consisting of high protein content among other components and interval feeding has been outlined by Wilder.[8] Insulin shock may be avoidable in some subjects with this disorder by use of medical management. However, resulting obesity seriously threatens future success of surgical exploration.

Surgical treatment is aimed at relieving insulin shock by removal of the hyperfunctioning tissue. Enucleation of the islet cell tumor or tumors is the treatment of choice. When it is realized that a tumor only several millimeters in diameter may be the cause of the patient's symptoms, it will be seen that adequate exposure and mobilization of the head, the body, and the tail of the pancreas is very necessary. Areas in which ectopic pancreatic masses occur should also be checked. A competent pathologist who can confirm the diagnosis of an islet cell tumor by frozen section should always be present. If the tumor is superficial it can usually be found without too much difficulty, but when deep in the tissues of the pancreas, discovery may be impossible.

When no tumor is demonstrable the treatment of choice is a subtotal pancreatectomy. This should consist of removal of the neck, body and tail of the gland. The rationale for this procedure rests on the fact that most adenomata occur in the distal portion of the pancreas. Rhoads, Howard and Moss[12] reported that, of 77 patients in whom the procedure was done, 42.9 per cent were relieved of their symptoms and 9.1 per cent were improved.

When radical subtotal pancreatectomy does not relieve the patient, a total pancreatectomy should be done secondarily.

REPORT OF CASE

Mrs. K. H., a 38-year-old white woman, was admitted to the hospital at 5 p.m. on September 20, 1954 because of drowsiness and mental confusion. Past illnesses included icterus neonatorum and 2 attacks of bronchopneumonia during childhood. Her menses were regular. The family history was noncontributory.

Her present illness began at least 1, or more probably several years before with sudden nocturnal awakening due to hunger sensation, flushing of the face, and a panicky feeling. These attacks occurred about 3 or 4 times during the preceding year, chiefly at one or two o'clock in the early morning, and were rapidly relieved after consumption of a can of peaches or pears. In 1936, at 20 years of age, the patient's weight was about 120 lbs. At 24 years of age the body weight had increased to 130 or 140 lbs. In 1941 the patient reached a maximal prepartum weight of 172 lbs. and returned to about 142 lbs. after delivery of a normal child. During the years 1945 to 1951 she noted that indigestion, occurring after mild abuse of alcohol, was rapidly relieved by ice cream. From about 1936 to 1951 the patient was inclined to have bilateral frontal headaches on arising. During the 12 months preceding her admission to the hospital she had increased her weight by 12 lbs.

On September 16, 1954, 4 days prior to her hospitalization, the patient had her usual breakfast, consisting of a sweet roll and black, unsweetened coffee. Her lunch of that day consisted of a Swiss cheese sandwich and black coffee. Two hours after lunch she noted drenching perspiration, mental confusion, shakiness, a feeling of going "crazy," and a ravenous appetite for grapes available in her desk drawer. A few minutes after eating these grapes she felt well again. Four days later an identical episode developed at about the same time. She became confused and unable to carry out the duties of her occupation. While arrangements were made to hospitalize the patient, loss of control of her mental faculties became complete and loss of control over locomotion necessitated admission to the hospital by ambulance.

Initial examination revealed a slightly obese, comatose woman, without obvious physical defect. Skin and clothes were moist from perspiration. In response to testing for pain with a pin the extremities were withdrawn equally and forcefully. A slow, alternating horizontal nystagmus was noted. Examination as far as was feasible failed to show papilledema or retinal hemorrhages. There was no nuchal rigidity. The body temperature was 98°F and the pulse rate 65 per minute.

Because of symptoms of central nervous system disease without localizing neurologic signs, as well as marked perspiration, venous blood was withdrawn for determination of its content of glucose. While awaiting the result of the test, 50 ml. of 50 per cent dextrose, syringe and appropriate suplies were secured. An hour after admission of the patient to the hospital a blood glucose level of 40 mg. per 100 ml. of blood was reported. Immediate glucose administration was started and within 2 minutes from the time of the injection the patient began to move her extremities with purpose, opened her eyes, and dramatically regained all her faculties, but remained temporarily confused as to time and place. The sweating ceased, and her pulse rate was counted at 85 per minute. A diagnosis of hyperinsulinism was considered established. Further studies were undertaken to rule out other causes of hypoglycemia. Urinalysis and blood count were normal. Radiographic examinations were negative for the chest, the sella turcica, and pancreatic calcification. Urinary 17-ketosteroid excretion was normal at 9.49 mg. per 24 hours. The total eosinophile count was 100 per cu.mm. A 3-hour standard glucose tolerance test showed the following curve:

Fasting blood glucose	104 mg.
30 minutes after 100 Gm. of oral dextrose	190 mg.
60 minutes later	210 mg.
120 minutes later	133 mg.
180 minutes later	66 mg.

There was no glycosuria noted during the test period.

For the sake of diagnostic certainty it was decided to reproduce another attack by starving the patient. At 10 p.m. of September 21, 1954, a fasting period was begun. Fifteen hours later the patient noted violent diffuse headaches relieved by aspirin. After 19 hours she became depressed, confused, and was very hungry. After 21 hours she gradually went into coma and developed symptoms and signs identical to the state at the time of admission to the hospital. Venous blood was withdrawn and hypertonic glucose injected intravenously without awaiting the result of the test, later reported to be 30 mg. per 100 ml. of blood.

On September 25, 1954, abdominal exploration was undertaken. A transverse subcostal incision was made and the gastrocolic ligament divided. The tail of the pancreas contained a hard tumor, 8 mm. in diameter. This nodule was removed. Thereafter the duodenum and head of the pancreas were mobilized and a second nodule, 25 mm. in diameter and of soft consistency, was palpated on the anterior surface of the pancreatic head. This tumor was also removed. Other abnormalities were not present.

Pathologic examination* showed the sectioned nodules to be grayish white and brownish. Microscopic examination revealed cuboidal cells in trabecular arrangement in some areas and acinar in others. A dense fibrous capsule surrounded both nodules. The capsule of the larger nodule contained tumor cells, and invasion of normal pancreatic tissue was present beyond the limits of the capsule.

Mild transitory diabetes mellitus appeared postoperatively, lasting about 6 days, and did not require insulin therapy beyond 10 units of regular insulin for each 50 Gm. of intravenous glucose. Postoperative blood sugar levels were as follows:

Date		
Sept. 26	Fasting:	166 mg.
27	Fasting:	142 mg.
(At 6 p.m.)		260 mg.
28	Fasting:	100 mg.
29	Fasting:	97 mg.
30	Fasting:	87 mg.

On October 9, 1954, another starvation period was started, although a transitory diabetic state was considered a favorable prognostic sign. Thirty hours of starvation was tolerated without appearance of insulin shock, and the blood glucose level was 72 mg. after 30 hours without food. The patient left the hospital in good physical condition.

Nine months later the patient was in good health and her weight was stabilized at 145 lbs. In comparison to the preoperative state, increase in vigor and ability to concentrate were noted. Fatigue and headaches disappeared and the general emotional disposition improved.

SUMMARY

Removal of 2 adenomas from the pancreas was curative of serious symptoms due to hypoglycemia. Invasion of the nodular capsule and of the pancreas beyond the capsule was noted on microscopic examination and should suggest a diagnosis of malignancy with a poor prognosis. However, previously reported similar cases were not associated with a malignant course of the illness. Our subject has remained in good physical condition 9 months after surgery.

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(*Continued on page 516*)

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* Pathologic examination of the tissue was done by Dr. O. B. Hunter, Jr.

CONTRIBUTIONS OF ST. ELIZABETHS HOSPITAL TO A CENTURY OF MEDICOLEGAL PROGRESS*

CAT.

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FOR one hundred years St. Elizabeths Hospital has stood on the imposing heights above the confluence of the Anacostia and Potomac Rivers commanding an unparalleled view of the Capitol of the United States. For one hundred years she has gazed benignly across the river at Congress with true psychiatric patience and understanding. I regret to report that the returning Congressional gaze has not always been so benign. Several full-scale investigations (of uneasy memory) stand as eloquent testimony to this judgment. Even though St. Elizabeths has always emerged with a clean bill of health, the Hospital, as far as I can determine, has never been requested to make a return examination of Congress. Despite these investigations, the continued support and interest of the Congress has been indispensable in helping St. Elizabeths attain its present enviable position in the medical and psychiatric world.

The Nation's capital has always been the mecca for distinguished jurists, law-makers and lawyers. For somewhat different reasons, it has also been the symbolic mecca for hosts of fascinating paranoid patients, many of whom have found their way to this hospital. Over the years this unique combination of circumstances has served to sharpen the medicolegal acumen of the psychiatric staff of St. Elizabeths. It has produced a unique atmosphere in which medicolegal thought has flourished. It is not surprising, therefore, that this fortuitous proximity to the Congress and its makers of laws has had a profound influence on the psychiatric institution whose centennial we are now celebrating.

If we can agree that Congress has exerted an important influence on St. Elizabeths, it may be useful to examine the reverse of this proposition, namely, in what ways has St. Elizabeths Hospital exerted its influence on Congress, the law-makers and the courts. The great Dr. Isaac Ray[1] anticipated my theme (as he anticipated so many things) in an address delivered in 1869 at the laying of the cornerstone of the State Hospital for the Insane at Danville, Pennsylvania, when he said:

"Within our own time, persons have been executed, who proclaimed from the gibbet delusions as monstrous as any that may be heard within the walls of any hospital in the land; and others have been discharged from confinement, by due course of law, simply because they could utter a few coherent sentences, and maintain for a few minutes a calm and rational demeanor. Such things are seldom seen now, thanks to the better knowledge and better influences diffused by hospitals for the insane; and if they are to disappear entirely, it will be owing in great part, no doubt, to the same agency."

We must now examine how St. Elizabeths Hospital, its dedicated founder, its gifted superintendents, its outstanding staff, and even its remarkable patients have in some way contributed either singly or in combination to a century of medicolegal progress.

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* Delivered at the scientific program, May 5, 1955, celebrating the One Hundredth Anniversary of St. Elizabeths Hospital. This paper is being published in two parts, of which this is Part I. Part II will appear in the October issue of the Medical Annals.

It will not be possible in the time allotted to discuss in detail all the numerous and significant contributions to medicolegal advance which have been made during the past hundred years. This would require a volume in itself and may well be a worthy project for a medicolegal historian of the future. On this occasion, however, I propose to discuss the various contributions under three general headings: first, the contributions of the Superintendents and their medical staffs to medicolegal progress; second, crucial court decisions concerning patients of St. Elizabeths Hospital which have set important medicolegal precedents; and third, psychiatric expert testimony in celebrated cases.

Contributions of the Superintendents and Their Medical Staffs to Medicolegal Progress

In its hundred years of growth St. Elizabeths has had but five superintendents. It is safe to say that each of the five, either by virtue of his position or his basic interest, has made significant contributions to forensic psychiatry. Dr. Charles Henry Nichols, our first Superintendent, from 1852 to 1877, supervised the construction of the hospital during the three years before the first patients were admitted. He displayed his early interest in forensic psychiatry while still at Bloomingdale. An early paper published in 1850 discussed the case of a young man indicted for "highway robbery."[2] The peculiar manifestations of this patient's "monomania" which led to his acquittal were described by Dr. Nichols with an understanding unusual for his time. In his official biography Atkinson[3] comments favorably on "his views upon most practical questions respecting the legal relations of the insane. . . ."

CHARLES HENRY NICHOLS, M.D.
Superintendent, 1852–1877

In his sketch of Dr. Nichols, Dr. Godding[4] wrote, "In the jurisprudence of insanity, those who remember the Mary Harris case do not need to be told how he (Dr. Nichols) stands." The famous Mary Harris was tried for the murder of a Mr. Burroughs in 1866 and acquitted on grounds of insanity, chiefly by virtue of the unequivocal testimony of Dr. Nichols. The case created a great deal of lay and professional interest and inspired a commendatory paper by Isaac Ray[5] under the forthright title, "The Insanity of Women Produced by Desertion or Seduction." Dr. Ray's summary of the case and his estimate of Dr. Nichols' ability is worth quoting in some detail: "A young woman smarting under the loss of her lover—provides herself with weapons—travels hundreds of miles to find him, watches patiently for a suitable opportunity, and at last deliberately shoots him dead at his desk in a Government office. She is then tried, with the sympathies of the court, jury and audience, all in her favor, acquitted on the plea of insanity, under a more liberal rule of law, on this subject, than was ever admitted before in any English or American Court; and immediately, without the slightest let or hindrance, is set at large.

CAT.

"... Among the medical witnesses who thought her insane was Dr. Nichols, Superintendent of the Government Hospital for the Insane, who, for more than twenty years, has been exclusively engaged in the care of the insane, and is well fitted, both by his mental qualities and his abundant experience, to pronounce an opinion on such a case, and it is not strange that the jury shrink from a conviction in the face of his testimony.

"The psychological and pathological aspects of the case were presented by Dr. Nichols with a force and clearness seldom exhibited on the witness stand, and evincing a profound and sagacious observation of mental phenomena resulting from disease."[5]

Mary Harris finally became a patient at St. Elizabeths Hospital in 1867 with the diagnosis of "periodic homicidal mania." Indeed, she had three separate admissions and was finally discharged in 1881 as recovered!

After Dr. Nichols left St. Elizabeths in 1877 to become Director of Bloomingdale, he returned to Washington as one of the expert witnesses for the defense in the famous trial of Guiteau which will be referred to later.

Dr. William Whitney Godding, the second Superintendent, from 1877 until his death in 1899, was a most prolific and colorful writer on many matters including the medicolegal. Over one third of his published writings deal with legal aspects of psychiatry.[6-12] He wrote a series of papers with legal and humanitarian overtones entitled, "Our Insane Neighbor: His Rights and Ours,"[13] which appeared in the *American Psychological Journal* for 1883 and '84. His practical but humane point of view was well demonstrated in his account of the celebrated trial of Guiteau, under the quaint but deceptive title, "Two Hard Cases."[14] (The first case, a long-time patient of Dr. Godding, was apparently used as a "curtain-raiser.") The good Dr. Godding betrayed his fallibility as a prophet of 20th Century literary tastes by opening with the following apology: "Psychological problems are not considered popular reading. . . ." Today his little volume would have been on the best seller lists. Dr. Godding's activities in this case will be discussed more fully in the section on celebrated cases.

Dr. Godding, in his role as an astute psychiatric clinician and observer, chafed under the unrealistic restrictions of the "Right vs. Wrong Test" of criminal responsibility. Zilboorg describes his address to the Psychological Section of the International Medical Congress in Washington in 1887 when he said, "I shall not live to see it, but he who writes the judicial history of the 20th Century will record the abolition among English-speaking nations of my Lord Coke's venerable dogma of a knowledge of right and wrong as a test of criminal responsibility in the insane."[15] Godding, however, did "live to see it" when Justice Somerville in 1886 in the case of Parsons vs. the State of Alabama recognized the irresistible impulse as a bar to legal responsibility.

WILLIAM WHITNEY GODDING, M.D.
Superintendent, 1877–1899

CA

ALONZO BLAIR RICHARDSON, M.D.
Superintendent, 1899 1903

Dr. Alonzo Blair Richardson, the third Superintendent, served only four years until his untimely death in 1903 Prior to his coming to St Elizabeths, Dr. Richardson[16, 17] had written several papers on the "restriction of personal liberty" and commitment of the insane. He was also interested in the relation of criminality to mental defect.[18] There is little doubt that Dr. Richardson would have contributed much more in the field of forensic psychiatry had he lived longer.

In regard to our illustrious fourth Superintendent, it will not be necessary to inform this audience, many of whom knew him personally, that Dr. William Alanson White was one of the great pioneers of forensic psychiatry in this country. His courageous espousal of modern psychiatric concepts and scientific humanitarianism in the face of popular prejudice and legal opposition has earned for him a permanent niche in the psychiatric Hall of Fame. Dr. White was a deft and prolific writer. The sheer volume of his work is staggering. An incomplete count lists 287 separate contributions of which over 20 are in the area of forensic psychiatry.[19] Dr. White's interest in this field began early. In 1895, while still at Binghamton, he published a paper on "The Criminal: His Social and Legal Status and the Philosophy of Reformation."[20] This was only the second publication of his long and distinguished career.

He wrote two major books on psychiatry and the law, "Insanity and the Criminal Law,"[21] published in 1923, and "Crimes and Criminals,"[22] which appeared 10 years later. The first of these became for many years the standard American authority on the subject of forensic psychiatry. Zilboorg[15] properly evaluated this work by saying, "In his 'Insanity and the Criminal Law,' which appeared in 1923, White unmasked the psychological motivations of criminal justice. He demonstrated the aggressive, revengeful motives of the criminal law; he pleaded for psychological determinism, for the careful and profound individualization of each case of crime, he decried the 'separation of the act from the actor.' White cited criminal cases which he himself had studied in great psychologic detail and with profound humane understanding. He wanted to abolish the hypothetical question and suggested that every future criminal lawyer serve an internship in a prison, in the same manner that a doctor serves in a hospital."

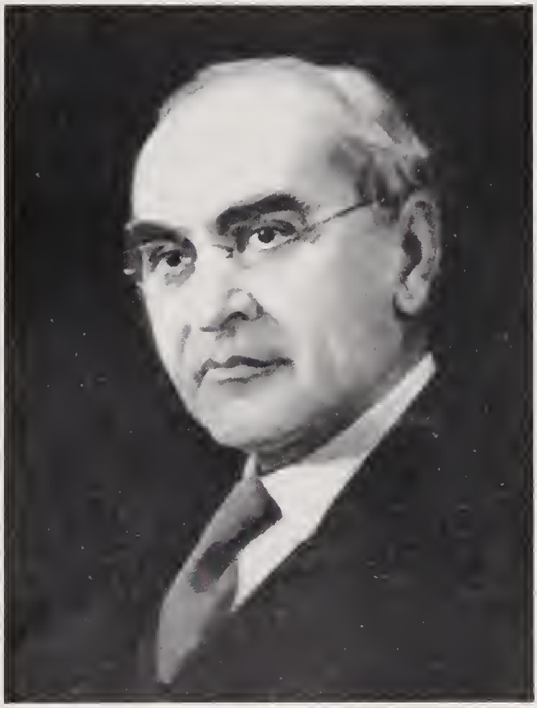
For all his 34 years as Superintendent of St. Elizabeths, Dr. White labored mightily to educate the public and especially the legal profession as to the "psychiatric facts of life." He constantly strove to improve procedures having to do with the mentally ill but was not always successful. For example, he did not live to see the abolition of the mandatory jury trial in lunacy proceedings in the District of Columbia, although he had done much to prepare the groundwork for the change which occurred in 1938, one year after his death.

Dr. White participated as an expert witness in many celebrated trials. In spite of his great skill and crusading zeal, these experiences became progressively more disillusioning and disheartening. For many of his later years, he refused "wherever possible to go into court for any purpose, because," he said, "the methods of procedure are such that I usually leave the witness stand with the feeling that I have not done justice to the side for which I testified nor to the cause of truth nor to myself. The trickeries of legal procedure seem to me out of place in a court of justice."[19]

Dr. White was a great humanist and approached the task of expert witness with seriousness and sensitivity. Shortly after he came to Washington he testified for the prosecution in a capital case. The man was finally hanged. This experience had a profound influence on Dr. White. In his memoirs he wrote, "I have come to feel that the physician, as an expert for the prosecution in a capital case, is occupying an anomalous position. He is where, I believe, he does not belong. I think the function of the physician should always be to salvage human beings and not to destroy them. And so I have never since lent my services to the prosecution in a capital case."[19]

The cause of forensic psychiatry in Washington could not have been better served than it was in 1937 by the appointment of our present Superintendent, Dr. Winfred Overholser. Dr. Overholser as former Commissioner of Mental Diseases had already made many important contributions to medicolegal progress in his native state of Massachusetts, a state in which the laws concerning the mentally ill were infinitely more enlightened than its politics. One of his chief accomplishments was the successful promotion and administration of the famous Briggs Law, which provides for the psychiatric examination of certain types of prisoners by neutral and impartial experts

On his arrival here Dr. Overholser was so shocked by the antiquated commitment procedures in the District of Columbia that he publicly condemned them as "barbarous" and referred to the District as "benighted" in this respect. Thanks in large part to his influence, these procedures have been greatly improved, provisions for voluntary admission were finally made, and cordial relations were established between the hospital and the courts.



WILLIAM ALANSON WHITE, M.D.
Superintendent, 1903–1937

In addition to his many local activities Dr. Overholser was able to make many important contributions to the medicolegal literature, contributions which have appeared in all the leading journals of psychiatry, law reviews, and specialized journals on criminal law and criminology.[23] Dr. Overholser has contributed much to the medicolegal activities of the American Psychiatric Association. He was one of the founders of its Section on Legal Aspects of Psychiatry and the Chairman for one year. He was also Chairman for several years of its Committee on Legal Aspects of Psychiatry. He has been, and still is, one of the leading psychiatric consultants of the American Law Institute and a valiant crusader for improving the quality of psychiatric expert testimony. In his Presidential Address before the American Psychiatric Association in 1948, he described the "ideal" expert in these words: "In legal proceedings he should be jealous of the prerogatives of the profession and appear always as an advisor rather than as an advocate, telling the truth as he sees it to the best of his ability, unmoved by the prospect of gain or fame. He should, in the legal field particularly, avoid so far as possible any controversies with his colleagues and seek opportunity for joint examination and report in contested cases."[23]

Dr. Overholser's fruitful labors in the vineyard of forensic psychiatry received signal recognition in 1952 when the American Psychiatric Association conferred on him the first Isaac Ray Award "for the most worthy contribution to the improvement of the relations of Law and Psychiatry." The four Isaac Ray Lectures delivered at Harvard University were later published in 1953 under the title, "The Psychiatrist and the Law."[24] In the opinion of at least one reviewer, publication of this volume firmly established Dr. Overholser as the American Dean of Forensic Psychiatry.

Time and space will not permit the mention of the countless unsung heroes who bravely carried the torch of psychiatric learning into the courtroom each time a patient took out a writ of habeas corpus. Several, however, deserve special mention. Foremost among them is Dr. Bernard Glueck, nationally known psychiatrist and psychoanalyst, who was for many years physician in charge of Howard Hall. While there, he became deeply interested in the prison psychoses and wrote extensively on forensic psychiatry. He wrote a book on the subject entitled, "Studies in Forensic Psychiatry,"[25] which appeared in 1916. Two years later, under the auspices of the National Committee for Mental Hygiene, he organized a pioneer psychiatric clinic in Sing Sing Prison which gave much needed data on the relationship of mental illness to crime and recidivism.[26] In 1924 he was, with Dr. White and Dr. Healy, one of the principal psychiatric witnesses in the famous Loeb-Leopold trial. In 1934, at the New York Academy of Medicine, he participated in a symposium on "Psychiatry and the Criminal Law." "In this discussion," states Zilboorg in "100 Years of American Psychiatry," "the new scientific-humanitarian trends of modern psychiatry stood out sharply, . . . (and) it was Bernard Glueck who represented the advance guard of psychiatry." One brief quotation from Dr. Glueck's discussion reveals his broad outlook. He stated, ". . . the only hopeful approach to the problem of criminal conduct lies in the application of a scientific individualized approach which has rehabilitation and reconstruction as its end in place of the traditional impersonal and more or less mechanical procedure that characterizes the legal approach to these problems. . . ."[15]

WINFRED OVERHOLSER, M.D.
Superintendent, 1937–

Dr. John Lind, like Dr. Glueck, was for many years physician in charge of the Howard Hall Service. Although he wrote extensively on medicolegal topics, he became chiefly known for his extraordinary skill as an expert witness. His quiet, unruffled demeanor, his ability to express psychiatric concepts in simple language, and his wide knowledge of psychiatry and law gave to his courtroom performance the éclat of a virtuoso.

The rich deposits of clinical material in Howard Hall received its most intensive (I might say almost microscopic) analysis by another nationally recognized staff member, Dr. Benjamin Karpman. Since coming to St. Elizabeths in 1920, Dr. Karpman has devoted much of his considerable energy to the study of the psychopathology of crime and the criminal. He is a skilled and prolific writer, having contributed literally scores of papers to the medicolegal literature. His total output is perhaps second only to that of Dr. White. The case studies in his books, "The Individual Criminal"[27] and "Case Studies in the Psychopathology of Crime"[28] are masterpieces of detailed description and analysis. In 1923 he was perhaps the first to use the technic of psychoanalysis in treating the criminally insane.[29] He has made careful studies of the psychopathology of sexual deviation and introduced the concept of the paraphiliac neuroses. On the basis of his clinical experience he has constantly emphasized the psychogenic and neurotic aspects of the so-called psychopathic personality, a condition which he regarded as one of the most profound of mental illnesses. His influence through his writings has been world-wide.

Many of the St. Elizabeths physicians concerned themselves with improving the commitment laws and other procedures governing the admission and treatment of patients. Most of us remember only too well the archaic practice of holding mandatory jury trials in open court in all lunacy proceedings in the District, a practice which traces its origins (and its overlong life) to an ancient act of Maryland in 1785. Since the District of Columbia was "carved" out of the state of Maryland, this act was held to govern procedure in the District. All of the Superintendents and many of the staff members attempted to eliminate this practice. Thirty years after Dr. White's first experience with a Congressional investigation in 1906, he reflected wryly that, "Despite the fact that the report very definitely recommended an improvement in lunacy legislation, it has been impossible during all the succeeding years to bring that about "[19] Thanks in large part to the efforts of Dr. Roger S. Cohen, who had ample opportunity to observe the baleful effects of the old procedures from the vantage points of a St. Elizabeths' staff member, Assistant District Alienist, and private practitioner, the Act of Congress creating the Commission on Mental Health was finally passed on June 8, 1938. Since then, the Commission, meeting informally at hospitals, homes, or its headquarters, has acted as an arm of the Court, making findings and recommendations to the District Court of the United States for the District of Columbia. A patient is still entitled to trial by jury if he so desires, but the work of the Commission has been so effective that the number of jury trials has been reduced to a minimum. Following the passage of the act creating the Commission, in 1938, several improvements followed in rapid succession. In 1939 an act was passed which provided for voluntary admission to Gallinger Hospital by court order. In 1948, Dr. Overholser, long an ardent champion for the cause of voluntary commitment, was largely responsible for obtaining legislation which permits voluntary admission to St. Elizabeths Hospital. That this act has been successful is attested by the steadily increasing number of patients each year who have taken advantage of its enlightened provisions.

In its hundred years of existence, St. Elizabeths has quite naturally been deeply interested in the thorny problem of the criteria for criminal responsibility. In 1855, when the Hospital was founded, the Rule of M'Naghten had been in operation for 12 years. This rule, often referred to as the right-wrong test, remained the sole and uncontested criterion for criminal responsibility in the District of Columbia until 1929. In that year, the Court of Appeals in the case of Smith vs. U. S. added the concept of "irresistible impulse" to the previously existing criteria. In criticizing the Trial Court's charge to the jury, to consider only whether the defendant could distinguish right from wrong, the Court of Appeals stated, "We think it (the charge) erroneous in point of law in that it ignores the modern well-established doctrine of 'irresistible impulse.' "[30] It will be of interest to this audience that this precedent-making decision hinged on the testimony of several psychiatrists, chief of whom was Dr. Roger Cohen. The major actor in this drama, Franklin Smith, was tried in 1928 and sentenced to death for the first degree murder of his daughter with whom he had been having incestuous relations. At the trial Dr. Cohen testified that although Smith could distinguish between right and wrong, he was completely governed by an irresistible impulse at the time of the act. Although the Court of Appeals reversed the decision of the Trial Court and ordered a new trial, it is ironic to note that Smith, apparently on advice of counsel, did not take advantage of this opportunity but accepted a compromise of life imprisonment.

Although the M'Naghten plus "irresistible impulse" tests received much deserved criticism from Dr. White, Dr. Overholser, and many others, they remained in force until the memorable Durham decision of July 1, 1954.[31] In this decision, which has been properly hailed by most enlightened psychiatrists and lawyers as a major step forward, St. Elizabeths Hospital has played a major role. Not only did St. Elizabeths Hospital treat the young man whose case has now become a medicolegal *cause célèbre*, but it had the dubious privilege of doing so on four separate occasions, with almost an equal number of diagnoses. In February, 1953, after 16 months of hospital treatment, Durham was certified as mentally competent to stand trial. At this point, a former (and also present) member of the staff of St. Elizabeths Hospital, Dr. Joseph L. Gilbert, who was then Chief Psychiatrist of D. C. General Hospital, was destined to play a crucial role in providing the perfect background against which the Court of Appeals could project its now famous opinion. The unique setting for this drama was vividly described by Mr. Abe Fortas[32] (who wrote the brief in the case) in a recent paper entitled, "Durham's Case: Mad or Bad?"

He writes, "Now there is often nothing extraordinary about a celebrated case except that chance, or some happy or unhappy coincidence of time or place or participants, marks it out for history. As the trial of Monte Durham opened in the courtroom, there was no reason to suppose that the Durham case would be anything more than another drab, dramatic scene, lost in the enormous panorama of the administration of justice. But something went wrong. The principal players, the judge, the prosecuting attorney, the police officers, and the government psychiatrist, Dr Gilbert, called as a witness for the defense, had played the same parts many times before. They knew their lines. The testimony as to the crime and the arrest, the preliminary testimony as to Durham's psychiatric history and Dr. Gilbert's examination of him months before the offense and two months after it—all of this came in smoothly.

"Dr. Gilbert has been chief psychiatrist at the local hospital for 22 years. He has examined thousands of criminals, and had testified flatly that Durham was 'of unsound mind' as of the date of the commission of the crime. He had concluded on four occasions, after examinations of Durham, that he suffered psychosis with psychopathic personality or undifferentiated psychosis, and it was his opinion that this condition obtained at the time of the housebreaking.

"So far, so good. A finding that Durham was not guilty by reason of insanity would seem inevitable. But then on redirect examination, the prosecuting attorney asked Dr. Gilbert the M'Naghten question. He asked Dr. Gilbert whether he would say that Durham 'knew the difference between right and wrong on July 13, 1951.'—It was here that the Durham case began to make its entry into history.

"What should Dr. Gilbert have answered? He knew that this was the critical legal question. Should he have answered 'no,' that Durham did not know the difference between right and wrong? If he had done so, his medical judgment of insanity and the legal test would have been in accord; the shilling of tribute would have been paid to the Lord Justices who announced the M'Naghten rule; the work-horse that is the law and the winged steed of psychiatry would have pulled the case across the river to its resting place; and all would have been peace and quiet. But for Dr. Gilbert to answer 'no' would, it seems to me, have been, at worst, a palpable untruth and at best, an unpleasant bit of casuistry."[32]

After some exchange between Judge Holtzoff and Dr. Gilbert, for the purpose of clarifying the question, Dr. Gilbert replied, ". . . I don't know how anyone can answer that question categorically, . . ." and ended by agreeing that he was unable to form an opinion.

Mr. Fortas continues: "The record in the Durham case was a singularly useful vehicle for challenging the M'Naghten rule. Because of Dr. Gilbert's testimony that Durham was of unsound mind, and his refusal to say that Durham could not distinguish between right and wrong, the record plainly, literally and dramatically pointed up the paradox: that a man may be insane or of unsound mind, but he may still be unable to satisfy the M'Naghten test."[32]

The Durham Decision, occupying almost 27 closely printed pages, was written by Judge Bazelon for the Court of Appeals. It is an extraordinarily comprehensive and scholarly piece of work displaying unusual familiarity with the relevant psychiatric literature. The essence of the decision is contained in the following passage:

"We find that as an exclusive criterion the right-wrong test is inadequate in that (a) it does not take sufficient account of psychic realities and scientific knowledge, and (b) it is based upon one symptom and so cannot validly be applied to all circumstances. We find that the 'irresistible impulse' test is also inadequate in that it gives no recognition to mental illness characterized by brooding and reflection and so relegates acts caused by such illness to the application of the inadequate right-wrong test. We conclude that a broader test should be adopted. . . .

"The rule we now hold must be applied on the retrial of this case and in future cases is not unlike that followed by the New Hampshire court since 1870. It is simply that an accused is not criminally responsible if his unlawful act was the product of mental disease or mental defect."[31]

The hopes of those who favored the Durham Decision were modest but important. They hoped it would improve the calibre of psychiatric testimony, help eliminate friction between psychiatrists and lawyers, induce more psychiatrists to devote themselves to this field, and allow for more enlightened methods of criminal administration. Perhaps those who will be here to celebrate the Bicentennial of St. Elizabeths Hospital in the year 2055 will best be able to judge if these hopes have been well founded.

(To be continued)

President's Page

SILVER ANNIVERSARY

Unexpected things happen to all of us and I have had my share. For example, two years ago it would never have occurred to me that I would one day be President of our Society. Needless to say, it was one of the most pleasant surprises of my life, this despite the demands of the office.

If my becoming President was unexpected, so is the fact that the Silver Anniversary of the Annual Scientific Assembly will occur during my administration. I am particularly pleased about this because my very good friend, Dr. Charles Stanley White, Sr., father of the Assembly, is to be honored. It will be my privilege to have a small part in the ceremonies.

As for this year's Assembly, the program, exhibits and other features described on the following pages speak for themselves. I am certain you will come to the same conclusion I did—that the coming Assembly will be one of the best meetings from the standpoint of quality and interest sponsored by our Society.

It is my sincere hope that the 60 to 70 per cent of our membership who usually attend the Assembly will this year be increased to 90 per cent. That is the way it should be.

Can we count on you?

W. Ross Morris

SILVER ANNIVERSARY

25TH ANNUAL SCIENTIFIC ASSEMBLY

HOTEL STATLER
WASHINGTON, D.C.
OCTOBER 10-11-12, 1955

CHARLES STANLEY WHITE, M.D.
Founder of the Annual Scientific Assembly

Upon the recommendation of Dr. White, the Medical Society of the District of Columbia established an annual meeting comparable to that of a state medical society, the first of which was held May 1, 1929. Dr. White was the first chairman of the committee on arrangements. A few years later the Annual Meeting was renamed the ANNUAL SCIENTIFIC ASSEMBLY. It has been held every year since, except in 1945, when, due to wartime restrictions on travel, it had to be suspended. The 1955 session is therefore the Silver Anniversary of the ASSEMBLY.

Silver Anniversary

1929 1955

SCIENTIFIC PROGRAM

ALL SESSIONS IN THE PRESIDENTIAL BALLROOM, HOTEL STATLER

MONDAY, OCTOBER 10—MORNING SESSION

Wallace M. Yater, M.D., *Presiding*

Chairman, Executive Board, The Medical Society of the District of Columbia

9:15 ADDRESS OF WELCOME
W. Ross Morris, M.D.
President, The Medical Society of the District of Columbia

9:30 THE SCIENTIFIC BASIS FOR SURGICAL TREATMENT OF CORONARY DISEASE
Claude S. Beck, M.D.
Professor of Cardiovascular Surgery, Western Reserve University, Cleveland, Ohio

9:50 THE CLINICAL ASPECTS OF SURGERY FOR CORONARY DISEASE
Bernard L. Brofman, M.D.
Director of Cardiovascular Research, Mt. Sinai Hospital, Cleveland, Ohio

10:10 EVALUATION OF THE ANTIPOLIOMYELITIS VACCINE PROGRAM
Thomas Francis, Jr., M.D.
Chairman, Department of Epidemiology, University of Michigan, Ann Arbor, Michigan
Robert F. Korns, M.D.
Assistant Commissioner, New York State Department of Health, Albany, New York

10:55 THE VETERANS ADMINISTRATION HOSPITAL PROGRAM
William B. Walsh, M.D.,
Member, Committee on Veterans Affairs, The Medical Society of the District of Columbia, Washington, D. C.
QUESTION AND ANSWER PERIOD

11:30 RECESS FOR LUNCHEON

MONDAY, OCTOBER 10—AFTERNOON SESSION

Oscar B. Hunter, Jr., *Presiding*

Chairman, Program Committee, 25th Annual Scientific Assembly

2:00 SYMPOSIUM ON DIAGNOSTIC AND THERAPEAUTIC USES OF RADIOISOTOPES

USE OF RADIOISOTOPES AS TRACERS ON A PRACTICAL LEVEL
Robert J. Fink, M.D.
Director, Isotopes Laboratory, Hunter Memorial Laboratory, Washington, D. C.

USE OF RADIOISOTOPES IN THERAPY ON A PRACTICAL LEVEL
Commander E. Richard King, MC, USN
Chief, Isotopes Laboratory, U. S. Naval Hospital, Bethesda, Maryland

EXPERIMENTAL USES OF ISOTOPES AS TRACERS AND IN THERAPY

Gould A. Andrews, M.D.

Medical Division, Oak Ridge Institute of Nuclear Studies, Oak Ridge, Tennessee

3:15 INTERMISSION

3:30 THERAPY OF FAR ADVANCED CARCINOMA OF THE BREAST

James R. Maxfield, Jr., M.D.

Maxfield Clinic and Hospital, Dallas, Texas

3:50 CHEMOTHERAPY IN MALIGNANT DISEASE

C. Lockard Conley, M.D.

Associate Professor of Medicine, Johns Hopkins University, Baltimore

TUESDAY, OCTOBER 11—MORNING SESSION

W. Ross Morris, M.D., *Presiding*

President, The Medical Society of the District of Columbia

9:30 THE OBSTETRICAL AND GYNECOLOGICAL APPLICATIONS OF THE EFFECT ON THE PELVIS BY MAN'S ASSUMPTION OF THE ERECT POSTURE

Joshua William Davies, M.D.

Instructor in Anatomy, College of Physicians and Surgeons, New York, N. Y.

9:50 THE COMPLICATIONS OF CHLORPROMAZINE THERAPY

Jacob Kirshner, M.D.

Research Fellow, Kingsbridge VA Hospital, Bronx, New York

10:10 AN APPRAISAL OF TOTAL GASTRECTOMY

Karl C. Jonas, M.D.

Instructor in Surgery, Temple University School of Medicine, Philadelphia, Pennsylvania

10:30 THE NEWER ASPECTS OF SYMPATHECTOMY IN ARTERIAL OCCLUSIVE DISEASE

Gerald H. Pratt, M.D.

Associate Clinical Professor of Surgery, New York University, New York, N. Y.

10:50 INTERMISSION

11:00 PRESENTATION OF MERITORIOUS AWARDS

11:45 RECESS FOR LUNCHEON

TUESDAY, OCTOBER 11—AFTERNOON SESSION

Milton M. Greenberg, M.D. *Presiding*

First Vice President, The Medical Society of the District of Columbia

2:00 THE IMPACT OF THE PROPOSED GOVERNMENT EMPLOYEES VOLUNTARY INSURANCE PLAN ON MEDICINE IN THE DISTRICT OF COLUMBIA

Donald Stubbs, M.D.

President, Medical Service of the District of Columbia, Washington, D. C.

2:20 LONG-TERM ANTICOAGULANTS IN CORONARY ATHEROSCLEROSIS

E. Sterling Nichol, M.D.

Medical Director, Miami Heart Institute, Miami, Florida

2:40 PRINCIPLES OF PARENTERAL NUTRITION

Morton C. Creditor, M.D.

Washington, D. C.

3:00 INTERMISSION

3:15 THE PROBLEM OF THE SOLITARY PULMONARY NODULE

C. Allen Good, M.D.

Associate Professor of Radiology, Mayo Foundation, Rochester, Minnesota

3:35 ESOPHAGITIS—A COMMON CONDITION FREQUENTLY OVERLOOKED

Herbert W. Schmidt, M.D.

Mayo Clinic, Rochester, Minnesota

3:55 NEWER ASPECTS OF THERAPY IN INFECTIOUS HEPATITIS

Thomas C. Chalmers, M.D.

Chief of Medicine, Lemuel Shattuck Hospital; Associate in Medicine, Harvard Medical School, Boston, Massachusetts

WEDNESDAY, OCTOBER 12—MORNING SESSION

Alfred A. J. Den, M.D., *Presiding*

General Chairman, 25th Annual Scientific Assembly

9:30 Recent Advances in Studies in Infertility

Fred A. Simmons, M.D.

Instructor in Gynecology, Harvard Medical School; Associate Visiting Surgeon, Massachusetts General Hospital, Boston, Massachusetts

9:50 Coagulation Defects in the Postpartum Period

Arthur Sawitsky, M.D.

Hematologist, Queens General Hospital, Jamaica, Long Island

10:10 Early Stages in the Development of Carcinoma of the Cervix

Leland D. Stoddard, M.D.

Professor and Chairman, Department of Pathology, Medical College of Georgia, Augusta, Georgia

10:30 Intermission

10:45 Symposium on the Tissue Committee

—from the Viewpoint of the Surgeon

O. Hugh Fulcher, M.D.

Professor of Neurosurgery, Georgetown University School of Medicine, Washington, D. C.

—from the Viewpoint of the Obstetrician-Gynecologist

J. Keith Cromer, M.D.

Head, Department of Obstetrics and Gynecology, Doctors Hospital, Washington, D. C.

—from the Viewpoint of the Pathologist

Theodore Winship, M.D.

Pathologist, Garfield Memorial Hospital, Washington, D. C.

—from the Medicolegal Viewpoint

H. Mason Welch, L.L.B., M.P.L.

Washington, D. C.

11:30 Recess for Luncheon

WEDNESDAY, OCTOBER 12—AFTERNOON SESSION

Dorothy D. Dowd, M.D., *Presiding*

Second Vice President, The Medical Society of the District of Columbia

2:00 Differential Diagnosis of Hemorrhagic Disease

Kenneth M. Brinkhous, M.D.

Professor of Pathology, University of North Carolina, Chapel Hill, N. C.

2:20 Secondary Hemolytic Disease in Malignancy and Uremia

Eric E. Muirhead, M.D.

Professor and Chairman, Department of Pathology, Southwestern Medical School of the University of Texas, Dallas, Texas

2:40 Some New Concepts of Thyroid Dysfunction

Henry H. Turner, M.D.

Clinical Professor of Medicine, University of Oklahoma School of Medicine; Director, Endocrine Clinic, University Hospitals, Oklahoma City, Oklahoma

3:00 Intermission

3:15 Clinico-pathological Conference

J. E. Ash, M.D.

Chief, Department of Pathology, Suburban Hospital, Bethesda, Maryland

Arnold McNitt, M.D.

Emeritus Head, Department of Medicine, Doctors Hospital, Washington, D. C.

Karl C. Jonas, M.D.

Instructor in Surgery, Temple University School of Medicine, Philadelphia, Pennsylvania

The Scientific Exhibit

The Scientific Exhibit will be on display in the South American, California, and Ohio Rooms, and in Foyer 3 of the Hotel Statler. Below is a list of the exhibits and the sponsors:

SOUTH AMERICAN ROOM

Titles	*Exhibitors*
Abnormal Hemoglobins	Grace H. Guin, M.D., Sanford L. Leikin, M.D., E. Clarence Rice, M.D., Enid F. Gilbert, M.D., and Langford Hicks, Technical Assistant, Children's Hospital
Artificial Insemination	Richard E. Kelso, M.D.
Cancer of the Head and Neck	Murray M. Copeland, M.D., John P. Haberlin, M.D., and Mr. Biagio Melloni, Georgetown University School of Medicine
Carcinoma of the Breast	Ernest A. Gould, M.D., and Harry H. Kerr, M.D.
Diagnosis with Radioactive Tracer Technics	Robert J. Fink, M.D., and Oscar B. Hunter, Jr., M.D.
Intravenous Cholangiography	Charles E. Bickham, M.D., Henry Spencer, M.D., and Groover, Christie & Merritt, Radiological Clinic, Garfield Memorial Hospital
Limitations in the Therapy of Acne	James Q. Gant, Jr., M.D.
Modern Corticosteroid Therapy in Ophthalmology—Uses and Abuses	John Harry King, M.D., Washington Clinic
Needle Biopsy in Kidney Disease	Alvin E. Parrish, M.D., and John S. Howe, M.D.
Pituitary and Adrenal Necrosis in Routine Autopsies	Alfred Plaut, M.D., Armed Forces Institute of Pathology
Problems and Assets Resulting from the Cerebro-spinal Fluid Circulation	O. Hugh Fulcher, M.D.
Prostatic Malignancy	William P. Herbst, M.D.
Pulmonary Manifestations of Parasitic Diseases	Henry K. Beye, M.D., National Microbiological Institute, National Institutes of Health
Recent Advances in Upper and Lower Extremity Prostheses	Everett J. Gordon, M.D., Orthopedic and Prosthetic Appliance Clinic, Veterans Administration Regional Office
Rehabilitation through Physical Medicine	Department of Public Health, D. C. General Hospital
Results in Surgical Treatment of Psychomotor Epilepsy	Arthur A. Morris, M.D.
The Management of Chest Injuries	John J. Nolan, M.D., and Frank S. Ashburn, M.D.
Thyroid Carcinoma in Children	Theodore Winship, M.D., Department of Pathology, Children's Hospital
Two Simple Tests for Early Recognition of Hip and Foot Deformities	Allan M. McKelvie, M.D., Alfred E. Jackson, M.D., and Joseph O. Romness, M.D.

National Institutes of Health

FOYER 3

Titles	*Exhibitors*
Clinical Diagnostic Studies Utilizing Radioactive Isotopes	Cdr. E. R. King, MC, USN, Lt. T. L. Balbus, MC, USNR, Lt. P. E. Raminez, MC, USN, Lt. W. F. Reid, MC, USN, and Lt. W. I. Fraud, MC, USNR, U. S. Naval Hospital, National Naval Medical Center
Contrast Radiography (Opaque Contrast Media)	Theodore F. Hilbish, M.D., E. L. Bronstein, M.D., and J. M. Morel, R.T., Diagnostic X-ray Department, Clinical Center, National Institutes of Health
Immediate Repair of Traumatic Injuries and Reconstruction of Congenital Anomalies	Alfred J. Suraci, M.D., Sibley Memorial Hospital, Washington, D. C., and Prince Georges General Hospital, Cheverly, Md.
The Effect of Man's Assumption of an Erect Posture on the Position of the Pelvis, Obstetrical/Gynecological Applications	Joshua William Davies, M.D., and Elise Renning, M.D., New York, N. Y.

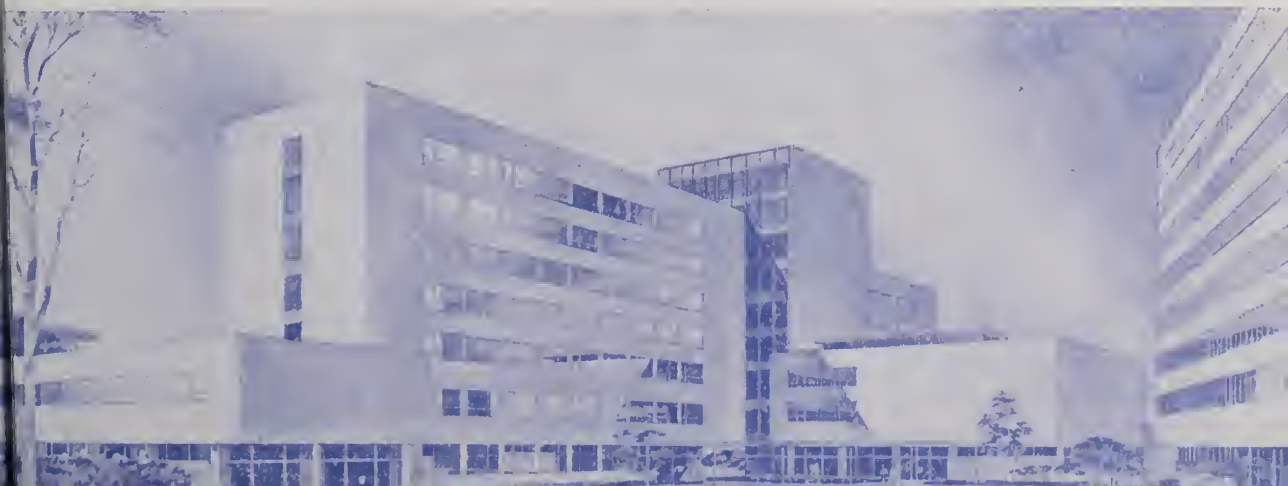
CALIFORNIA ROOM

Titles	*Exhibitors*
Clinical Aspects of Sickle Cell Anemia in Children	Roland B. Scott, M.D., Angella D. Ferguson, M.D., Harriette M. Clark, M.D., and Leroy E. Hoeck, M.D., Howard University School of Medicine and District of Columbia General Hospital
Common Postoperative Complications—Prevention, Recognition, Management	Howard S. Madigan, M.D., Hugh H. Hussey, M.D., and Philip A. Caulfield, M.D.
Glutamic-Oxaloacetic Transaminase (G.O.T.) in Myocardial Infarction	Bernard H. Ostrow, M.D., John M. Evans, M.D., Daniel Steinberg, M.D., and Howard Ticktin, M.D.
New Concepts in Diagnosis and Treatment of Toxemia of Pregnancy	Frank Finnerty, Jr., M.D., and Robert L. Guillaudeu, M.D., District of Columbia General Hospital
Stripping Operation for Varicose Veins	Frederick B. Brandt, M.D., Raymond Brown, M.D., and Thomas G. Edison, M.D.
Vaginal Cytology	William S. Baum, M.D., National Cancer Institute, National Institutes of Health

OHIO ROOM

Titles	*Exhibitors*
Anticoagulant Therapy Controlled by a Simple Blood Prothrombin Test	Benjamin Manchester, M.D., George Washington University School of Medicine
Dermabrasive Surgery	Murry M. Robinson, M.D.
Vascular Complications of Diabetes	DeWitt E. DeLawter, M.D., James M. Moss, M.D., and Aaron Saidman, M.D.
The Surgical Anatomy of the Facial Nerve	Othmar Solnitzky, M.D., and Louise Warner, M.D., Department of Anatomy, Georgetown University School of Medicine

Architect's Drawing of New Sibley Hospital



Medical Motion Pictures

All Motion Pictures at Hotel Statler

PAN AMERICAN ROOM

MONDAY, OCTOBER 10

Time	*Titles*	*Sponsors*
9:30	Responses of Psychotic Patients to Reserpine (Serpasil)	Robert H. Nace, M.D., David B. Williams, M.D., and Walter Rapaport, M.D., Sacramento, Calif.
9:40	The Clinical Manifestations and Treatment of Gout	Elmer C. Bartels, M.D., Boston
10:08	Diagnosis and Office Management of the Arthritides	William B. Rawls, M.D., New York, N. Y.
10:36	Principles of Fracture Reduction	Veterans Administration, Washington, D. C.
11:06	Fractures about the Wrist and Hand	Veterans Administration, Washington, D. C.
2:00	Mycosis Fungoides	Marvin N. Solomon, M.D., Brooklyn, N. Y.
2:15	Aortic Graft for Abdominal Aneurysm	A. W. Humphries, M.D., Cleveland, Ohio
2:36	Tetralogy of Fallot	John C. Jones, M.D., Los Angeles, Calif.
3:36	Glaucoma—What the General Practitioner Should Know	National Society for the Prevention of Blindness, New York, N. Y.

TUESDAY, OCTOBER 11

Time	*Titles*	*Sponsors*
9:30	Polyps of the Large Intestine	Hilger P. Jenkins, M.D., Melvin M. Newman, M.D., and Rudolph Jauda, M.D., Chicago, Ill.
10:14	Traction Sigmoidoscopic Development	A. E. Moore, M.D., San Diego, Calif.
10:26	Anemia	William Dameshek, M.D., New York, N. Y.
10:59	Bronchopulmonary Segments, Part I: Anatomy and Bronchoscopy	Chevalier L. Jackson, M.D., John F. Huber, M.D., and Charles M. Norris, M.D., Philadelphia, Pa.
2:00	Special Problems in the Management of Peptic Ulcer	Everett D. Keifer, M.D., Lahey Clinic, Boston, Mass.
2:44	Observation of Human Ovulation by the Pelviscope	Joseph Bernard Doyle, M.D., Boston, Mass.
2:57	Inguinal Hernia and Hydrocele in Infants and Children	William L. Riker, M.D., Arthur DeBoer, M.D., and Willis J. Potts, M.D., Chicago, Ill.
3:14	Radioisotopes: Their Application to Humans as Tracer Studies and for Therapeutic Use	U. S. Atomic Energy Commission, Washington, D. C.
3:40	Postoperative Aerosol Therapy	Max S. Sadove, M.D., and Reuben C. Balogot, M.D., Chicago, Ill.

WEDNESDAY, OCTOBER 12

Repeat showing of most popular films and other films received too late to be listed in program.

Assembly Calendar

All Meetings at the Hotel Statler

MONDAY, OCTOBER 10, 1955

8:30 A.M.: Registration

9:15 A.M.: Address of Welcome, **W. Ross Morris, M.D.,** President, The Medical Society of the District of Columbia

9:30 A.M.–11:30 A.M.: Scientific Program*

9:30 A.M.–12:00 Noon: Motion Pictures

12:15 P.M.– 1:30 P.M.: Medical Society Luncheon, Presidential Ballroom

Speaker: **Charles W. Harbaugh,** U. S. Chamber of Commerce, Washington, D. C.

Subject: "The Doctor and Freedom of Choice"

2:00 P.M.– 4:00 P.M.: Scientific Program

2:00 P.M.– 5:00 P.M.: Motion Pictures

Mr. Harbaugh

TUESDAY, OCTOBER 11, 1955

9:00 A.M.: Registration

9:30 A.M.–11:00 A.M.: Scientific Program

11:00 A.M.–11:45 A.M.: Awards Ceremonies. Presentation of Certificates for Meritorious Service to Dr. William Earl Clark and Dr. Addison M. Duval, and the John Benjamin Nichols Award to Mrs. Henry Grattan Doyle

9:30 A.M.–11:30 A.M.: Motion Pictures

12:15 P.M.– 1:30 P.M.: George Washington University Medical Society Luncheon, Presidential Ballroom

Program to be announced

2:00 P.M.– 4:00 P.M.: Scientific Program

2:00 P.M.– 5:00 P.M.: Motion Pictures

7:00 P.M.: Dinner for Doctors' Secretaries, Assistants, Nurses, Technicians and Receptionists, Presidential Ballroom

Speaker: **Winfred Overholser, M.D.,** Superintendent, St. Elizabeths Hospital, Washington, D. C.

Subject: "The Patient—Before and After"

WEDNESDAY, OCTOBER 12, 1955

9:00 A.M.: Registration

9:30 A.M.–11:30 A.M.: Scientific Program

9:30 A.M.–11:30 A.M.: Motion Pictures

12:15 P.M.– 1:30 P.M.: Georgetown University Medical Alumni Luncheon, Presidential Ballroom

Speaker: **The Honorable Roswell B. Perkins,** Assistant Secretary, Department of Health, Education and Welfare

Subject: "The Administration's Activities in Health"

2:00 P.M.– 4:30 P.M.: Scientific Program

2:00 P.M.– 5:00 P.M.: Motion Pictures

(*Continued on page 488*)

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* The Scientific Program will be presented in the Presidential Ballroom throughout the meeting.

8:00 P.M.: Annual Dinner, Presidential Ballroom (7:00 P.M. Cocktails) "Suit—Ure Tastes"—An All Medical Talent Revue
A Night of Fun and Good Music.
A special feature will be the presentation of a silver tray to DR. CHARLES STANLEY WHITE, founder of the ASSEMBLY.

Dinner for Doctors' Staffs

Dr. Overholser

This has become one of the successful features of the ASSEMBLY. Attendance has always been large and there has been much enthusiasm for the programs presented. Included in the invitations to the dinner are doctors' secretaries, assistants, nurses, technicians, and receptionists.

The dinner this year will be held in the Presidential Ballroom of the Hotel Statler on Tuesday, October 11, 1955 at 7:00 p.m. An excellent musical program will be offered by talented Washington physicians, their wives and office personnel. The speaker will be Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital; his subject: "The Patient Before and After." Dr. Overholser is one of the country's most effective speakers. He brings to his audiences a worthwhile message in a natural and often humorous manner.

All physicians are urged to purchase tickets for their staffs. Tickets are $5.00. This will be less than the cost of the dinner, the deficit being paid by the Society. Reservations should be made on forms which will be sent every physician.

Presentation of Awards

A feature of the ASSEMBLY which always stimulates a great deal of interest is the presentation of awards. Each year from among the membership the Executive Board of the Medical Society of the District of Columbia selects recipients for the Certificate for Meritorious Service. The membership will applaud this year's selections, who are Dr. William Earl Clark, Past President of the Medical Society and long a leader in Washington medical circles, and Dr. Addison M. Duval, Assistant Superintendent of St. Elizabeths Hospital, Washington, active in Medical Society affairs for a number of years and a leader in community health affairs.

The recipient of the John Benjamin Nichols Award will be Mrs. Henry Grattan Doyle, one of Washington's most distinguished citizens, whose service to the community, both in the health and educational fields, has merited high praise. She was a unanimous choice of the Committee on Public Information for the Nichols Award.

All the above awards will be presented on Tuesday, October 11, at 11:00 a.m. in the Presidential Ballroom of the Hotel Statler.

AAGP Approval

The Educational Committee of the American Academy of General Practice has approved the Annual Scientific Assembly for postgraduate training of Academy members. The necessary concurrence by the State Chapters was obtained last year. Credit up to a total of 18 hours will be given AAGP members who attend all sessions of the Assembly.

AAGP members who are not members of the Medical Society of the District of Columbia will not be required to pay a registration fee but must present membership cards for identification.

The Technical Exhibit

The Technical Exhibit will be on display in the Congressional and Federal Rooms. A list of the exhibitors follows:

	Booth No.
Abbott Laboratories	14
Aloe, A. S., Company	36
Ames Company, Inc.	21
Arcum Pharmaceuticals, Inc.	45
Ayerst Laboratories	57
Baby Development Clinic	32
Baker Laboratories, Inc.	4
Beech-nut Packing Company	55
Beth-mont Surgical Supply Company	18
Beuchler's, Inc.	22
Bilhuber-Knoll Corporation	47
Borden Company	59
Brayten Pharmaceutical Company	53
Burroughs Wellcome & Co. (USA), Inc.	34
Burton, Parsons & Company	46
Ciba Pharmaceutical Products, Inc.	2
Coca-cola Company	65
Davies, Rose & Company, Limited	26
Dietene Company	3
Eaton Laboratories	62
Doho Chemical Corporation	64
C. B. Fleet Company, Inc.	9
Geigy Pharmaceuticals	66
Gibson Company	10
Charles C. Haskell & Company, Inc.	29
H. J. Heinz Company	50
Hoffmann-LaRoche, Inc.	7
Holland-Rantos Company, Inc.	5
Ives-Cameron Company, Inc.	17
Keleket X-ray Corporation	37 & 38
Kloman Instrument Company, Inc.	42
Lederle Laboratories Division	13
Liebel-Flarsheim Company	1
Eli Lilly & Company	12
J. D. Lippincott Company	58
M & R Laboratories	67
Maxwell & Tennyson Pharmacists	25
Mead Johnson & Company	23
Meredyth Company	51
Merrell, William S., Company	15
National Drug Company	63
Ortho Pharmaceutical Corporation	61
E. L. Patch Company	11
Peoples Drug Stores, Inc.	35
Pet Milk Company	30
Pfizer Laboratories	16
Poythress, William P., & Company, Inc.	28
Purdue Frederick Company	40
Reynolds, R. J., Tobacco Company	69
Robins, A. H., Company, Inc.	31
Roerig, J. B., & Company	52
Sanborn Company	20
Sandoz Pharmaceuticals	60
Saunders, W. B., Company	24
Schering Corporation	56
Schmid, Julius, Inc.	48
Searle, G. D., & Company	44
Sharpe & Dohme, Inc.	43
Smith, Kline & French Laboratories	39
Squibb, E. R., Company	68
U. S. Vitamin Corporation	8
Van Pelt & Brown, Inc.	33
Varick Pharmacal Company	6
Walker Laboratories	49
Warner-Chilcott Laboratories	41
William & Wilkins Company	27
Winthrop-Stearns, Inc.	49

Registration

Arrangements have been made to register members of the Medical Society prior to the opening of the Assembly at the Society's Executive Offices on Thursday, October 6, and Friday, October 7, between 9:00 a.m. and 5:00 p.m.

The Registration Section at the Hotel Statler will be located in the Federal Room and will open on Monday, October 10, at 8:30 a.m. Visiting physicians, medical officers in the various branches of Government service, and Society members not previously registered may register and secure their badges at the Registration Section. Invitations have been extended to residents, interns, dentists, pharmacists, medical students, and others to register for the Assembly at the Hotel. No one will be admitted to the scientific sessions or exhibits without a badge.

There will be a registration fee of $3.00 for visiting physicians and non-members of the Society, *except* officers of the Army, Navy and Public Health Service, and physicians employed by the Veterans Administration and other Government agencies, who will be admitted without paying a registration fee. Members of the American Academy of General Practice will also be registered as guests of the Society upon presentation of their Academy membership cards at the Registration Section.

Members planning to attend the Medical Society's luncheon on the opening day of the Assembly, Monday, October 10, must register and secure their tickets at the Society's Executive Offices on Thursday or Friday before the Assembly. *Each Active member is entitled to one ticket without charge as long as they last.* Associate and Affiliate members and non-members of the Society may purchase luncheon tickets at a cost of $3.50 each.

Tickets for the luncheons given by the George Washington University Medical Society and the Georgetown University Medical Alumni Association may be obtained at the District Medical Society's Executive Offices on October 6 and 7 or following the opening of the Assembly in the Registration Section.

GEORGE WASHINGTON UNIVERSITY MEDICAL SOCIETY LUNCHEON

Tuesday, October 11, 12 Noon
Tickets: $3.50

Meet Your Friends at Lunch

Advance sale of tickets at Medical Society's Executive Offices or from one of the following officers:

President: **Dr. Robert R. Montgomery**
President-elect: **Dr. Richard H. Fischer**
1st Vice President: **Dr. Donald S. Leeper**
2nd Vice President: **Dr. Duane C. Richtmeyer**
Secretary: **Dr. William O. Bailey**
Treasurer: **Dr. Naomi M. Kanof**

GEORGETOWN UNIVERSITY MEDICAL ALUMNI LUNCHEON

Wednesday, October 12, 12 Noon
Tickets: $3.50

Have Lunch with Your Friends

Advance sale of tickets at Medical Society's Executive Offices or from one of the following officers:

President: **Dr. Raymond A. Osbourn**

Vice President: **Dr. August Kramm**

Secretary-Treasurer: **Dr. William D. Dolan**

Editorials

BLUE SHIELD AND THE MEDICAL SOCIETY

The relation of Blue Shield to organized medicine has changed notably with the shift of these medical care plans from instruments of limited interest to institutions of broad public benefit. No longer is the average Blue Shield Plan a small organization built by a local group of physicians to give some of the advantages of prepayment to their patients, often with the primary concern to ward off more objectionable methods of economic control. Born of the necessities imposed by a shifting economy from "pay-as-you-go" to a well nigh universal system of credit operation, Blue Shield has become the principal means by which more than thirty million Americans apply this principle in their acquisition of specified physician services.

Created by the medical profession in its boldest step of true public leadership of this generation, Blue Shield has now outgrown the narrow confines of its origin and has become a widely recognized public service and trust. It is still the only plan by which a prepayment deposit can assure the average patient of service benefits with free choice of physician at a community rate on a "not-for-profit" basis, administered as a public service by outstandingly competent local citizens. But, these major features are such that the broad outlines of health insurance have been adopted by insurance interests of all types, convinced that the public demand for such coverage already exists as an assured market of profit.

On the other hand, some physicians, failing to see in perspective the whole scene of national and local change, are alarmed at the growth of this instrument they thought of so recently as a static stopgap, and they are afraid it may destroy them. Yet to such vision as was shared by those who shaped this fine experiment it stands as the best hope of preserving for the American people the free system of medical practice which has brought our health service to its present level.

With the recognition that evolution has now progressed to the permanent establishment of the local Blue Shield Plan as an institution of wide community responsibility, it has also become clear that the local control of each Plan must be increasingly responsive and sensitive to public interest.

Medical Service of the District of Columbia, although organized entirely by members of the District Medical Society and under sponsorship of that organization, is now governed by a board of 15 public-minded citizens, a majority of whom are *not* members of the Society. The basic function of this Board is to establish policy to guide the Plan in a manner most helpful to the whole community as well as to the physicians who sponsor and support it. The Board considers all changes, especially any of an expanding character, from both major standpoints: public interest and fair professional gain.

Blue Shield everywhere, and Medical Service here, is at this moment, in response to irresistible public demand, engaged in developing the most significant program of expansion in its history. However much desired, needed, or demanded by the public, such a program must have the full support of physicians to be successful. In rendering such support each one acts as an individual. Nevertheless, the Medical Society in each local

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

area has an important supporting role as an educational clearing house and as an organized mechanism for developing to articulate form the consensus of professional attitude. This role of the Society is not unlike the one it has for all matters involving public health welfare, but this is more intimate and continuous.

In recognition of this fact the Board of Medical Service has recently provided the medical societies of the District of Columbia and of adjoining areas in Maryland and Virginia with the outline of expansion plans which conform closely to a pattern being studied all over the country. The same information has gone to a score of special groups and thus is now being studied by Participating and Coöperating Physicians of the entire Metropolitan Area. When this study has matured, all these physicians will be asked for their views on the finally drawn provisions of change just as was done at the time of the last significant change in the Plan two years ago. This vote will be by mail in order that the Board may have the benefit of expressions from as many physicians as possible to guide their decisions.

This pattern of Board coöperation is the brightest omen for the future of private medical practice. Each medical society will function best as the forum for expressing joint views on public and professional interest and as the organized medium for making all physicians partners in the important aspects of professional citizenship. Blue Shield with its composite Board will be sympathetically responsive and completely coöperative with all such community-inspired interest.

Donald Stubbs, M.D.
President, Medical Service of the District of Columbia

A REVIEW OF NATIONAL MEDICAL LEGISLATION

A roundup of medical legislation passed by the first session of the 84th Congress is easy to compile. Only three bills of much national consequence were enacted: extension of the doctor draft, provision for a Nation-wide survey of mental health problems, and authorization of money for Salk anti-polio vaccine for needy children.

But this session's net legislation does not tell the complete story of what took place. Congressional committees held hearings on between 17 and 20 bills that might be considered of major medical interest. Committees reported out some of these bills, and others were passed by one chamber and not the other. All of these bills will be ready and waiting for action next year, their preliminary hurdles having been overcome. Add to these the bills that individual Representatives and Senators will become interested in during the next few months, and the complete legislative program the Eisenhower administration is likely to propose, and you will see that the final session of the 84th Congress will not be a quiet one. Also, it would be careless in the extreme to lose sight of the fact that next year is a presidential election year, and that each party will be under great temptation to use health legislation as a popular sounding board for votes.

Those of us who work closely with Congress are not inclined to say one session was a "good" one and another a "bad" one. The issues and the pressures remain, regardless of the party in power, and the laws enacted are no more than conspicuous high water marks that do not tell much about the erosion that is going on all the time.

Yet it is fair to say that this Congress, so far, has listened to the doctors' arguments on most issues.

We were unsuccessful in preventing a two-year extension of the doctor draft act, but some long-overdue improvements were made in the law to exempt men who previously had been turned down for commissions.

Although it had a long run, the Salk vaccine circus finally folded its tent, at least until Congress reassembles. At one time the prospect was for legislation to put the Federal Government firmly into the business of allocating all the vaccine, and to give free inoculations to all persons under 20, whether they wanted to pay or not. Eventually reason prevailed; the Department of Health, Education, and Welfare was allowed to put into effect its completely voluntary system of allocations, which has the support of all the professional people, and the Congress passed legislation simply offering states enough money to buy vaccine for one third of the children and pregnant women.

The American Medical Association and the American Psychiatric Association are firmly behind the plans for the survey of national mental health problems. Once we know more specifically what the problem is, and how best it can be attacked, we will be in a better position to ask Congress for the proper legislation implementing the findings in this survey.

Under strict discipline, the House of Representatives passed a bill to set up a compulsory disability insurance program, offering the disabled worker his full social security pension at age 50 once his disability had been certified. Under existing law pension rights are "frozen" upon disability, but the pension is not payable until age 65. The medical profession believes that the machinery necessary to regulate medical examinations would project the Federal Government into the control of medical practice. Next session there will be ample time for the doctors to make their views known to the Senate Finance Committee, which has promised full hearings on the disability insurance program.

We can look forward to further action next year on a plan for Federal aid to medical schools. This proposal, pushed by Senator Hill, was the subject of hearings last session, and will be ripe for passage. It is supported by the AMA.

Another bill, backed by Senator Bridges as well as Senator Hill, calls for U. S. grants for construction of research facilities for certain diseases. This was passed by the Senate toward the close of the last session, but has not yet been reported out of committee in the House.

The doctors in this country, who for years have been trying to obtain taxation equality with corporation employees, were cheered last July when the House Ways and Means Committee voted to report out the Jenkins-Keogh plan. This would allow the self-employed to defer payment of income taxes on a portion of their income if put in an annuity fund. In the closing rush, the committee did not formally complete action on the bill, but progress on it may be expected next year.

FRANK E. WILSON, M.D.
Director, Washington Office,
American Medical Association

VITAMINS ARE PHARMACEUTICALS

A clear-cut victory was won by a group of local pharmacists when District of Columbia Tax Court Judge Jo V. Morgan, on July 28, ruled that vitamin and mineral preparations were not "foods" and were therefore not subject to the 1 per cent tax placed upon foods by the District of Columbia Sales Tax Act. The decision is expected to have weighted impact upon similar situations nationally because of the District of Columbia's unique governmental and political position as the Nation's capital and the tendency of other jurisdictions to "look to Washington" for guidance. Although Judge Morgan's opinion was based primarily upon the text of the District of Columbia Sales Tax Act and the regulations issued thereunder, some of the comments are broad enough to have general application in the long-time controversy as to whether vitamins are foods or drugs.

Although the amounts of tax-money involved were relatively small when compared to the overall annual budget of the District of Columbia (which exceeds a hundred million dollars), there were several basic principles involved which have bearing upon the public health, the cost of medical care, and the practice of medicine and pharmacy. To understand better all that was involved, a summary of events might be in order:

In July of 1954, following Congressional amendment of the District of Columbia Sales Tax Act to include foods as taxable commodities and publication of the Commissioners' Regulations under the Act, the District of Columbia Tax Assessor published a ruling, effective August 1, 1954, that "vitamins and minerals in liquid, powdered, granular, tablet, capsule, lozenge or pill form . . . are food or a food supplement . . . except when sold on the written prescription of a physician . . . and are subject to the District Sales Tax at a rate of 1 per cent." This ruling was formally protested to the Commissioners by the District of Columbia Pharmaceutical Association, prior to its effective date; but since the Tax Assessor had found one nutritional expert and one Government-employed pharmacist to confirm his opinion, the Commissioners sustained the Tax Assessor administratively, in spite of the Act's specific exemption from tax of "medicines, pharmaceuticals and drugs" whether sold on prescription or not.

In the face of this arbitrary ruling and the failure of the Commissioners to set it aside, 15 independent and chain drug stores (all members of the District of Columbia Pharmaceutical Association) engaged legal counsel and, upon advice of counsel, refused to charge and collect the tax during the period following the twentieth of August, 1954. For several months, these pharmacists (the number dropped to 11 finally) faithfully reported all sales of vitamins and minerals and noted the cash value of the sales on their tax returns. They were then assessed the amount of the taxes and interest by the Tax Assessor; and they later paid assessments and penalties, under protest, when threatened with legal prosecution for failure to collect and pay. Following these efforts by the Assessor, the pharmacists then collected these taxes, paid the tax monthly (under protest) and filed suit in the District of Columbia Tax Court to recover these illegal assessments.

Judge Morgan heard the case in May, 1955, and listened to the testimony of the following expert witnesses, who appeared on behalf of the pharmacists: Drs. Preston A. McLendon and William P. Herbst, of the Medical Society of the District of Columbia; Dr. Lloyd Miller, of the U. S. P. Revision Committee; and Dr. Theodore G. Klumpp, nationally-known medical advisor and consultant. All of these witnesses testified that vitamins (and minerals) are drugs when extracted and used for therapeutic purposes; and all pointed out the role of vitamins and minerals in preventive medicine, pediatric and geriatric medicine, and in maintenance of good general health. Witnesses for the District of Columbia Government included a nutritionist and two biochemists, who said that vitamins are foods, but who admitted using the term in a broad nutritional sense. The decision by Judge Morgan will allow the pharmacists to recover the taxes paid under protest where their records will substantiate the amounts paid as taxes on vitamins.

Editorially, there are several morals and lessons to be drawn from this decision and the events which preceded it:

1. There is an increasing tendency on the part of lay administrators to make decisions which affect the public health and welfare without proper consultation with qualified professional persons and agencies. Although the services and opinions of the District of Columbia Health Department, the Commission on Licensure to Practice the Healing Arts, the Board of Pharmacy and other public health groups were available, the Tax Assessor by-passed these experts and went outside to get opinions which would support his ruling.

2. Arbitrary (and often illegal) rulings and regulations quite often remain effective for lack of prompt and strong contest at the time they are initiated.

3. Action against arbitrary rules and regulations is most effective when joint or combined rather than individual efforts are utilized. The

action of the District of Columbia Pharmaceutical Association, ably assisted by members of the medical profession and officers of the Medical Society of the District of Columbia demonstrated the illegality of the Tax Assessor's ruling when an individual protest would probably have gotten nowhere and the ruling would have remained effective by default and lack of contest.

4. Characterization of one of medicine's vital weapons against disease as "foods" (even though only for tax purposes) would have tended to destroy in the minds of some people confidence in the physician and the therapeutic agents he dispenses or orders.

5. The re-definition of vitamins and minerals as "foods," if allowed to stand, might easily have set aside normal schemes of dispensing and distribution of essential medical and health necessities and invited misuse and/or overmedication.

6. By prompt and effective protest and action, the ever-increasing cost of medical care and medicines was not boosted by an illegally applied tax.

F. ROYCE FRANZONI

NUMBER ONE IN NEW SERIES

In this issue of the MEDICAL ANNALS our readers are offered the first of a new series of comprehensive reference articles on topics of current medical interest. Credit for the series goes to Dr. Thomas M. Peery, Director of Postgraduate Instruction at George Washington University. With the assistance of his committee members, Dr. W. Proctor Harvey of Georgetown University and Dr. W. Montague Cobb of Howard University, a list of specified subjects was prepared and physicians, authorities in their particular fields, were invited to prepare an article relating to their specialty which would pull together, in one essay, the newest concepts of both diagnosis and treatment which have developed so rapidly in the postwar decade.

Number one in the series, by Dr. Monroe J. Romansky, Associate Professor of Medicine, George Washington University School of Medicine, presents "Principles and Factors Influencing the Treatment of Antibiotic Therapy." Others to follow will cover such topics as:

Sickle Cell Anemia
Emphysema
Lupus Erythematosus
Ulcerative Colitis
Therapy in Pulmonary Tuberculosis
Fungus Diseases of the Respiratory Tract
Prophylaxis of Rheumatic Fever

The committee's standards for articles to be included in this series are unusually high. We hope that our readers will study them carefully, clipping and filing the pages for future perusal or in some other way preserving them for quick reference. Your Editorial Board feels that this series is of more than transitory value.

In and Out of Focus

BY THE OBSERVER

Health Fair (cont.) In the February issue of the MEDICAL ANNALS your Observer reported that participation by the Society in what was to be known as the Health Fair had been approved by the Society's Executive Board; that it was hoped the Fair would be a community enterprise in which the Washington Board of Trade and official and voluntary health agencies would coöperate. Recently there have been developments which give assurance that the Fair, now in the preliminary planning stage, will become a far more ambitious project than was anticipated.

On July 15 a meeting was held in the Society's building in which representatives of the Medical Society, the Washington Board of Trade, and the Health Section of the United Community Services participated. They organized themselves as a steering committee, of which Dr. J. Ross Veal was made the chairman. Various aspects of the Fair were discussed but no conclusions reached. The Secretary of the Medical Society was asked to serve as director of the Fair, which he agreed to do. He was also requested to submit an organization plan and an outline of a program for the committee's approval.

Tentatively, the plan developed by the Director calls for a Citizens Committee, to be headed by a prominent individual who will serve as honorary chairman, and by Dr. W. Ross Morris, President of the Medical Society, as chairman. Invited to become members of the Committee would be health officials, officers of local and national health organizations, and prominent citizens active in the health field. Supervising the conduct of the Fair would be an Executive Committee to include not only members of the original steering committee but representatives of the District of Columbia Dental Society, the Junior Chamber of Commerce, the District Health Department, and the general public. Among the committees to be appointed are the Program, Technical or Scientific, Finance, Production, and Public Information.

It is proposed that the name of the exhibit be National Health Fair. This seems particularly appropriate in view of the fact that participation of Government agencies and national health organizations is contemplated. There is also a precedent for the District to sponsor an exhibit of a national character. An example is the Cherry Blossom Festival, which is locally sponsored yet national in character.

The Fair's primary purpose is to disseminate health information in the hope that people viewing the exhibits will coöperate more intelligently with those responsible for their medical care. It has been suggested that the Fair include visual displays showing established medical procedures; facts about medical research of legitimate interest to laymen; medical care facilities in and around the Nation's Capital; and activities of local and national, official and voluntary health agencies.

There is no reason why the Fair should not be unique in the annals of such undertakings because of the wealth of scientific material available in Washington. It is proposed that only original exhibits be accepted and that they be superior to what is ordinarily shown.

An exhibit without a correlated program, i.e., motion pictures, health forums, and demonstrations would be "dead." Therefore it is proposed to include attractive and informative features that will maintain sustained public interest in the Fair.

Of course, one of the most important functions will be that of the Finance Committee, because financial solvency of the Fair must be guaranteed in advance. It is hoped that local firms, organizations and institutions will provide the necessary funds.

It is tentatively planned to hold the Fair in April 1956. In the intervening months the public and the profession will be kept informed of developments and how they can coöperate to make the Fair a worthwhile and memorable community effort.

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Twenty Years Later

In response to an invitation from your Observer, Dr. Arthur C. Christie, long recognized as one of Washington's most eminent physicians and now in retirement in Florida, agreed to a tape-recorded interview in which his recollections of the Committee on the Costs of Medical Care would be discussed. The interview was held in the Medical Society's offices on January 4, 1952.

More than two years passed before the recording was transcribed and a copy forwarded to Dr.

Christie for his approval. Dr. Christie had no corrections to make and the original copy was filed away for future reference. Recently your Observer had occasion to read the manuscript again and it occurred to him that some of Dr. Christie's observations would be of special interest to readers of this column.

For the benefit of those whose recollections of the Committee are vague or who have recently joined the medical ranks, it might be profitable to review its history. Early in 1926 a small group of leaders in the medical, public health and social sciences gathered in Washington for the purpose of discussing medical costs and whether there was need for a study of the subject. No general agreement was reached but another meeting was scheduled. This and subsequent meetings were held with the result that the Committee on the Costs of Medical Care was organized, consisting of some 48 members representing the fields of private medical practice, public health institutions, medical institutions, special interests, social sciences, and the general public. The Committee embarked upon a five-year research program in 1928, which was to culminate in one of the most exhaustive and significant studies of its kind. Of the 48 members, 17 represented private practice; 10, institutions and special interests; 6, public health; 6, social sciences; and 9, the public.

It was perhaps too much to expect that such a diverse group could agree upon a given course of action. This became evident toward the close of the Committee's work when several members of the Committee made it clear that they could not go along with the majority. The final report of the Committee therefore contained the report of the majority, reports of the first and second minority groups, and statements by two individuals who held views of their own.

The majority report contained in essence the following recommendations:

1. Medical service (both preventive and therapeutic) be furnished largely by organized groups of physicians, dentists, nurses, pharmacists, and other associate personnel; such groups to be organized preferably around a hospital for rendering complete home, office and hospital care

2. The extension of all basic public health services—whether provided by governmental or nongovernmental agencies—so that they will be available to the entire population according to its needs

3. The costs of medical care be placed on a group payment basis through the use of insurance, through the use of taxation, or through the use of both of these methods

4. The study, evaluation and coördination of medical service be considered important functions for every state and local community; and

5. The training of physicians give increasing emphasis to the teaching of health and prevention of disease; more effective efforts be made to provide trained health officers; social aspects of medical practice be given greater attention; specialties be restricted to those specially qualified; and postgraduate educational opportunities be increased.

The first minority group adopted the following recommendations:

1. Government competition in the practice of medicine be discontinued and its activities be restricted (a) to the care of the indigent and those patients with diseases which can be cared for only in governmental institutions; (b) to the promotion of public health; (c) to the support of medical departments of the Army and Navy, Coast and Geodetic Survey, and other Government services which cannot because of their nature or location be served by the general medical profession; and (d) to the care of veterans suffering from bona fide service-connected disabilities and diseases, except in the case of tuberculosis and nervous and mental diseases

2. Government care of the indigent be expanded with the ultimate object of relieving the medical profession of this burden

3. Study, evaluation and coördination of medical service be considered important functions for every state and local community, that agencies be formed to exercise these functions and that the coördination of rural with urban

services receive special attention

4. United attempts be made to restore the general practitioner to the central place in medical practice

5. The corporate practice of medicine financed through intermediary agencies be vigorously and persistently opposed as being economically wasteful, inimical to the continued and sustained high quality of medical care, or unfair exploitation of the medical profession

6. Methods be given careful trial which can rightfully be fitted into our present institutions and agencies without interfering with the fundamentals of medical practice

7. The development by state or county medical societies of plans for medical care.

Publication of the Committee's report marked the beginning of a controversy which has continued to the present day, although somewhat abated in recent years. There is still a wide gap between the extremists as to methods which should be adopted in financing medical care. It is interesting to note that some of the recommendations contained in the majority and first minority reports thought of as radical at the time have long since been accepted.

Those who signed the first minority report were private practitioners with two exceptions, the Reverend Alphonse Schwitalla, of St. Louis, able spokesman for the voluntary hospitals, and Dr. Olin West, then Secretary-General Manager of the American Medical Association. Dr. Christie was not a member of the Committee to begin with, his appointment becoming effective sometime in 1928. However, shortly after joining the Committee he became very active in its affairs. In fact, when the first minority report was written he was called upon to perform the task. He describes the circumstances as follows:

On a certain date in 1932, which Dr. Christie cannot recall, a meeting of the full Committee was scheduled for the purpose of voting on the completed report. Objections to this procedure were raised by representatives of the private practice group who insisted upon time in which to prepare a minority report. They were given three days in which to do it and Dr. Christie drew the assignment.

"I spent at least two sleepless nights writing all night in order to finish the report," Dr. Christie says. "The minority report was written entirely by me and is an attempt to compromise somewhat the views of different members of the minority group and at the same time present my own convictions."

In elaborating on some of the more controversial aspects of the minority report, Dr. Christie made these observations:

> "We approved group practice where group practice seemed to be a natural development in a particular situation. As a single method of medical practice, we opposed it. We felt that it was in a sense an artificial method of practice—was not the natural method of practice—and that it did have a good deal to do with doing away with the personal relationship between a physician and his patient.
>
> "We pointed out that the majority report had placed emphasis upon the recommendation that practice should be carried out altogether through groups of medical practitioners and not through single practitioners at all. They emphasized that and set it down in their report as the first and most important recommendation that they had to make. We said in our minority report that we felt that was out of focus, that it was not so important as the majority had made it seem to be, and that it would completely change the method of medical practice in the United States. As a result, there would be an over-all control by certain large groups of men instead of its having a general dissemination through the medical profession.
>
> "That was our attitude at that time toward group practice and I believe our attitude at the present time would be very much the same. Group practice wherever it is a natural development has been of great value and has been a way of progress in certain aspects of medical practice. But to make it the one method of medical practice was wrong then and I think still is wrong.

* * * * *

> "We stated in our report that we were opposed not only to compulsory health insurance but to voluntary health insurance also. Now, it should be understood that what we were thinking of was the kind of voluntary insurance that had been prevalent up to that time—that we had never had, for instance, group hospitalization or any kind of voluntary insurance such as we have today.

> We were thinking of the old types of contract practice and health insurance sponsored by lodges where quality was sacrificed for quantity. To this type of insurance we were opposed. I think all right-thinking men are opposed even at the present time to this type of arrangement. I'm sure every one of the minority group—perhaps with one exception—would be in favor of present-day voluntary health insurance where there is free choice of doctor. Certainly there are many among us who have since worked hard to put voluntary insurance into operation. We certainly would not be opposed to the type of limited voluntary insurance that has been built up during recent years.
>
> "Our opposition was to that shotgun type of insurance that tried to cover all types of medical care and that we were certain would lead to all the evils that the old methods of contract and lodge practice had led to in the past."

Dr. Christie said that "no type of voluntary insurance that had ever been devised up to that time could be sound financially." He readily admits that if the first minority group made any mistake in judgment it was that it did not visualize the possibilities of voluntary insurance as it is known today.

Nevertheless, Dr. Christie feels that present-day physicians owe a debt of gratitude to the minority group for the stand it took against compulsory health insurance. For he says: "It's the one method that will lead to statism; it's the shortest method into the complete socialization of medicine that anybody could possibly devise; and it would saddle on this country the greatest bureaucratic régime that the country has ever known—or that any country has ever known—because it would be so much larger than it has ever been in any other country. So I think that we're justified in that situation.

"I believe that the American Medical Association and organized medicine in general learned a great deal from the hard knocks that it received during all of those years and I'm greatly in hopes that we can learn to compromise our differences and can show the people of the United States that we're really going forward to help in the constructive building of medicine."

In reflecting upon the various recommendations of his group, Dr. Christie had much more to say, but space does not permit their inclusion in this column. The excerpts quoted were thought to be of most interest in light of developments since the historic report first made its appearance.

Publication of the Committee's report in early 1933 was followed by a rash of debates between supporters of the majority and the first minority reports. These became increasingly acrimonious in the decade that followed. World War II brought a temporary cessation of hostilities which were resumed in the postwar years. With the advent of the present Administration the adversaries have entered upon another comparatively quiescent period. How long this will last, one can only conjecture. Political trends and economic conditions will undoubtedly be determining factors.

* * *

Medical Service's Status

There are some members of the Medical Society who seem to be under the impression that Medical Service, Washington's Blue Shield Plan, is under the jurisdiction of the Society; that it must comply with the wishes of the Society in all professional matters; and that policies affecting physicians require the Society's approval. In this belief, they have on occasion been critical of the Society's failure to act in what they consider the profession's interest. An effort has been made on more than one occasion to correct this impression but in some quarters it still persists.

What then are the facts about the relationship between the Medical Society and Medical Service? It perhaps would be best to begin with the origin of the Service in the mid-1940's. For a year or more the Society's Committee on Medical Care concerned itself with the development of a prepayment plan. Many months of study and numerous meetings culminated in the submission of a plan which was approved by the Society on June 19, 1946.

Shortly thereafter the plan was incorporated under the name "Medical Service of the District of Columbia" as a nonprofit organization in compliance with the laws of the District of Columbia. The 23 incorporators, all members of the District Medical Society, elected officers and a Board of Trustees. The latter consisted of 11 members, seven of whom were to be members of the Society; one to represent the U. S. Public Health Service; two, the Washington Metropolitan Health Council (upon the Council's demise, one has been chosen by the Board of Commissioners of the District of Columbia and one by the Washington Board of Trade); and one, the District of Columbia Health Department. The by-laws specified that the Secretary of the Medical Society should be an ex-officio member of the Board of Trustees without a vote.

As was expected, actual operation of the Service disclosed the need for a number of changes. Most of them, however, were of a minor nature. An exception was the increase in the membership of the Board of Trustees from 11 to 15. This action was taken in response to a demand for additional representation on the Board. It was confirmed by Participating Physicians at a meeting on April 28, 1953. The additional members are two representing adjacent medical societies in Virginia and Maryland and two representing the public, who are chosen by the Board.

The Board of Trustees is the Service's governing body. It supervises the administration of the Service and is responsible for the conduct of its fiscal affairs. It designates committees and specifies their duties. (Perhaps the most important committee is the Committee on Physicians' Services, which reviews and adjudicates cases involving patients and physicians.) In fact, the Board has the power to act in any manner it sees fit on behalf of the Service. Nevertheless, in matters of policy the Board seeks the guidance of Participating Physicians before coming to a decision. An annual meeting is held in April of each year at which there is an election of officers, reports of officers and administrator, and discussion and action on current problems.

This then in brief is the Service's history and the manner in which it operates. As an independent, corporate body it is responsible only to its subscribers and its Participating Physicians. This is not to suggest that the professional influence is not a properly dominant one nor to infer that its Board of Trustees ignores the Medical Society and other medical groups where matters of a professional nature are involved. On the contrary, it often seeks advice of these groups.

The point to be made here is that while Medical Service owes its existence to the Medical Society, once incorporated it became an autonomous body. Its affairs are conducted by its Board of Trustees in accordance with its by-laws and the wishes of its Participating Physicians. Therefore, most of its decisions are made without consulting the Medical Society or anybody else. However, the Board of Trustees is fully aware of the community nature of the Service and its obligations to both subscribers and physicians and acts accordingly.

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Doctor Hess

Like all vigorously positive people, Dr. Elmer Hess, President of the American Medical Association, has his share of ardent supporters and of vocal detractors. However they may feel about him, few people question his courage and his integrity.

Personally, Dr. Hess possesses seemingly limitless physical energy, is a spirited conversationalist (privately, on the salty side), an unusually effective public speaker, and an aggressive debater. Always outspoken, he is at his best in rough-and-tumble debate.

These are the more or less obvious traits and abilities which distinguish Dr. Hess. As one gets to know him better, one discovers in him an innate dignity, sympathetic understanding, and a faith that is fundamentally religious.

Above all, he is intensely proud of his profession; at the same time, severely critical of its shortcomings. These he unhesitatingly points out and zealously dedicates himself to eradicate.

Undoubtedly, his administration will be remembered for the crusading spirit of its leader.

Physicians sometimes find his frankness in public print disturbing. Well aware of this, Dr. Hess will not be deterred on that account. He believes in exposing to light all facts in a controversy. In the end he is confident the best interests of the people and of the medical profession will be served.

An example of this is an article entitled, "Do Doctors Charge Too Much?" which appeared in *The American Weekly*, a newspaper supplement, on April 24, 1955. This touchy subject, which many medical leaders would avoid, was dealt with by Dr. Hess in his usual straightforward manner. While insisting that comparatively few of his colleagues overcharge, he was frankly critical of the too prevalent methods which result in a misunderstanding between physicians and their patients.

> "All too frequently the patient's inquiry is referred to a third person—the physician's secretary, a bookkeeper, or someone else employed by the doctor to keep his records.
>
> "No matter how skilfully these people handle the subject, it is hard for the patient to escape the conclusion that the fees are set arbitrarily by the laymen who are the doctor's assistants.
>
> "The invaluable personal touch between doctor and patient is lost.
>
> "I think the least a doctor can do is to show some personal concern over his patient's ability to take care of his medical bill, even if all details of the actual financing are handled by some employee in his office.
>
> "I think, too, that the doctor should regard very seriously his responsibility to advise his patients that the over-all cost of treatment involves more than just fees for examination and service. This is the area in which most of the misunderstanding between physician and patient occurs.
>
> "Expensive medications and fees for special hospital or laboratory services come to some patients as a surprise, and they can do much to wreck the economic stability of a family of modest means. The tendency of the lay person is to lump these costs, in his mind, with his doctor's bill. As a result, the blame for the high cost of medical care is laid at our door.
>
> "The physician can control these costs to a certain degree by using discretion in prescribing medications and in ordering treatments at the hospital. . . .
>
> "I believe that doctors should treat their patients' pocketbooks as they would their own. If aspirin will do the job, why order sulfa?
>
> "If a doctor's fee, itself, seems too high to a patient, the patient now can seek an adjustment in a way that never existed back in the days of the old-time family doctor. He can appeal to a mediation committee, whose special work is to hear patients' grievances.
>
> "A network of these committees, appointed by county and state medical societies, spreads across the Nation, and they have the strong backing of the American Medical Association."

What has surprised and pleased most thoughtful physicians has been Dr. Hess' emphasis on the importance of adhering to high ideals and spiritual values in the practice of medicine. In this same article Dr. Hess observed:

> "There is no greater reward in our profession than the knowledge that God has entrusted us with the physical care of His people. The Almighty has reserved for Himself the power to create life but He has assigned to a few of us the responsibility of keeping in good repair the bodies in which this life is sustained.
>
> "Once I was called to care for an elderly lady who had an inoperable cancer. All we could do was make her as comfortable as possible. One morning she called me to her bedside at the hospital and asked if I would pray with her.
>
> "I knelt by her bed and said the prayers while she made the responses. When I finished I ordered the nurses on each shift to take a few minutes to say prayers with the dying woman. To my amazement this sweet old lady, who lived for about six weeks, never again asked for sedatives to ease her great pain. When I asked her about this one day, she replied, 'Dr. Hess, I want my mind clear when these dear women pray with me.'
>
> "Most physicians accept their trust with humility. They realize that the healing art is not a right which one assumes but a privilege which is bestowed."

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Our Proudest Possession

What's in a name? That is what we ask ourselves in childhood when we write the name we are told is ours.—Joyce. As we approach adult years our names take on more significance. They identify us—set us apart from all other people. Our names are indeed our proudest possession!

It is natural then that where our names are concerned, we are sensitive to any show of disrespect or indifference. We will much more readily forgive other affronts. Even such slights as mispronouncing or misspelling one's name are irritating, for they confirm what we may often suspect, that those responsible consider us of little importance.

Doctors have often remarked to your Observer, "I can remember faces but I have a dickens of a time with names." Then they relate the devices to which they resort in order to conceal this fact from their patients, such as prearranged reminders of the patients' names by their secretaries. Sometimes such arrangements misfire and the doctor finds himself in an embarrassing situation.

The fact is, of course, that if the individual—doctor, or whoever it might be—were sufficiently interested in a person's name or made any real effort to remember it, there would be no difficulty. The solution after all is simple enough, that is, to give close attention to the person's name when communicating with him, whether it be in conversation or by correspondence. The doctor would also do well to look attentively at a patient's name as it appears on his records and be sure he knows how the name is spelled.

The doctor's secretary is not free of criticism in this regard. She too may become careless. It is not unusual for patients to receive letters and bills in which their names are misspelled. This is, to say the least, an irritation and an indication to the patient of either carelessness or indifference.

Now in making these observations your Observer does not wish to give the impression that he is infallible when it comes to remembering names, their proper pronunciation and spelling. He admits he too falls far short of perfection in this respect. But, at least, he makes a sincere effort to avoid slips.

Mention should be made of persons with unusual or foreign names. They seem to have become increasingly numerous. Your Observer happens to be one of these and some strange things have been done to his name. Although it is spelled just the way it sounds and is not too difficult to pronounce, he has made allowances for some wild distortions. Even so his ego would be bolstered a bit if there were a closer approximation to the proper pronunciation and spelling of it. He is certain that others in his category feel the same way.

T. W.

WOMAN'S AUXILIARY NOTES

Mrs. Lawrence Albert Rapee assumed office as President of the Woman's Auxiliary to the Medical Society of the District of Columbia on July 1. She was elected to the presidency after having served the Auxiliary as Recording Secretary, chairman of the House, Membership, Social and Advisory Committees, and as a delegate to the National Auxiliary Convention for the past four years.

Mrs. Rapee is the former Ann Sproles, daughter of the late Dr. Thomas Andrew Sproles and Camille Rodgers Sproles of Houston, Texas. She is a graduate of the St. Mary's and University of Texas Schools of Nursing, of Galveston, Texas, and after receiving her nursing degree, she specialized in anesthesia at Charity Hospital in New Orleans, La.

When World War II began, Mrs Rapee was employed as a staff anesthetist at the Mayo Clinic in Rochester, Minn. A general hospital for overseas duty was organized there immediately following Pearl Harbor, and in 1942 Mrs. Rapee became a member of the armed forces as Chief Nurse Anesthetist for that unit. After nearly two years of overseas duty in the South Pacific, she returned to complete her four years of Army service at Walter Reed General Hospital in the Department of Anesthesia.

In 1943, while stationed at Stark General Hospital in Charleston, S. C., she married Dr. Lawrence A. Rapee, a Reserve Officer who was serving in the Army Medical Corps at that post. Dr. Rapee, a native Washingtonian, practices internal medicine at 1150 Connecticut Avenue, N.W.

In addition to her Auxiliary activities, Mrs. Rapee is an active member of the Ladies Aid to Garfield Memorial Hospital, the Opti-Mrs Club of Washington, the Christ Child Society, the Church of the Little Flower Parish, and the Kenwood Country Club.

When asked about hobbies, Mrs. Rapee admitted that bowling with the Auxiliary League is her first love. She also enjoys bridge, gardening, and fishing with her husband when he allows her along.

The officers and chairmen who will serve with her for the year 1955–1956 are:

Officers

President-elect: Mrs. Albert E. Marland
First Vice President: Mrs. W. Ross Morris
Second Vice President: Mrs. David M. Nolan
Recording Secretary: Mrs. Charles Tegge
Assistant Recording Secretary: Mrs. J. Blaine Harrell
Corresponding Secretary: Mrs. Joseph M. Rom
Assistant Corresponding Secretary: Mrs. Harold R. Downey
Treasurer: Mrs. Julius Radice
Assistant Treasurer: Mrs. Brooks G. Brown
Historian: Mrs. E. Herbert Bauersfeld
Parliamentarian: Mrs. Richard H. Todd

Chairmen of Standing Committees

Membership: Mrs. Edward C. Wilson, Jr.
Ways and Means: Mrs. George W. Ware
Program: Mrs. Howard A. Donald
Finance: Mrs. William T. Gibb
Social: Mrs. Leonard T. Peterson
Publicity: Mrs. I. Phillips Frohman
House: Mrs. James Peter Murphy
Public Relations: Mrs. M. Noel Stow
Philanthropic: Mrs. Jonathan M. Williams
Educational: Mrs. James H. Scully
Bulletin and *Today's Health:* Mrs. V. John Murgolo
Legislative: Mrs. Herbert H. Schoenfeld
Advisory: Mrs. Duane C. Richtmeyer

Chairmen of Special Committees

American Medical Educational Fund: Mrs. Vasilios S. Lambros
Visiting: Mrs. George H. Crofton
Mental Health: Mrs. John A. Kneipp
Correspondence: Mrs. Harold R. Downey

The programs and activities for the coming year will continue to promote the social, philanthropic and educational interests of the Medical Society and the Auxiliary. The Bowling League, which has grown to 100 members, will be a popular social activity.

The Nursing Scholarship Fund will be a major educational endeavor. Every effort will be made to further develop last year's infant, the Pre-registered Nurse Group. This is a group of junior and senior high school students, sponsored by the Auxiliary, who are given special training in the care of the sick on hospital wards. Last year the first group was trained at Columbia Hospital for Women, and it is the desire of the Auxiliary to increase the number of such groups this year, with the hope of interesting more high school upper classmen in nursing careers. In addition to this project, the Public Relations Committee and Publicity Committee will be working hard to publicize the Nursing Scholarship Fund. Seven scholarships were completed during the past year and three new

MRS. LAWRENCE A. RAPEE

President, Woman's Auxiliary to the Medical Society of the District of Columbia, 1955–56

HOUSE OFFICERS' MEDICAL ESSAY CONTEST

Sponsored by The Medical Society of the District of Columbia

The Medical Society of the District of Columbia invites all residents and interns of hospitals in the District of Columbia to compete in a Medical Essay Contest under the auspices of the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA, the official publication of the Society.

Essays on original research projects (basic or clinical), review articles, or historical treatises of medical subjects may be entered in the Contest.

Prizes totaling $150.00 ($100.00, first award; $50.00, second award) will be given for the best articles submitted in any one year unless in the opinion of the Editorial Board no essays of sufficient merit are submitted to justify an award. Honorable mention may be given other essays. All essays submitted and accepted for publication will become the sole property of the MEDICAL ANNALS.

Essays must be not less than 6 nor more than 20 double-spaced, typewritten, letter-size pages in length and must be submitted not later than March 1, 1956 to

The Editor
Medical Annals of the District of Columbia
1718 M Street, N. W.
Washington 6, D. C.

Further details may be obtained by writing to the Editor. The Editor reserves the right to edit accepted essays as he deems proper.

scholarships have been awarded to start the new year.

The American Medical Educational Fund Committee will be an active one and great effort will be made to increase the amount of the yearly contribution of the Auxiliary to that worthy fund. For the past two years, the District of Columbia Auxiliary has received an Award of Merit from the American Medical Association for its contribution, which has amounted to more than $1.00 per member. The President of the Auxiliary has been asked by Miss Kate Smith, Chairman of the Woman's Division of the National Fund for Medical Education, to be a charter member of the District of Columbia Sponsoring Committee, and many plans are being made to stimulate public interest in the need for private financial support for the Nation's 81 medical schools.

Another committee with big plans will be *Today's Health* Committee. It is the feeling of the Auxiliary that many of our physicians and dentists are not aware that *Today's Health* magazine is published by the American Medical Association with the lay person especially in mind. It is the one magazine where patients may read authoritative articles on medical research and public health. It is a powerful propaganda agent for better understanding of good medical practices and public relations with patients and should be in the reception room of every doctor's office. A survey will be attempted during the year in an effort to accomplish this objective.

The Program Committee is planning an interesting and enjoyable series. The first program of the year, on October 12, will include an address by Dr. W. Ross Morris, President of the District of Columbia Medical Society, followed by a fashion show, with Auxiliary members modeling, to be presented by Mrs. Sue Boteler for Jelleff's, Inc. Special guests of honor will be the charter members of the Auxiliary and visiting wives of physicians who will be attending the 25th ANNUAL SCIENTIFIC ASSEMBLY at that time.

All members are invited and urged to attend the monthly meetings and to take an active part in the objectives of the Auxiliary.

MRS. I. PHILLIPS FROHMAN
Publicity Chairman

On the Lighter Side

September has much more to offer than freakish winds and howling hurricanes. For instance, there is the usual drop in temperature that makes sleeping at night a remembered pleasure. There are the golden days with the pungent smell of woodfire smoke, the caressing sun and the fruition of flowers and trees. Even the grasses in the green fields reach maturity and wisely nod acquiescence to the gentler breezes.

The mornings also are a pleasure to behold with glistening dewdrops on every leaf and blade of grass, with the twittering and songs of those early risers—the birds, and with the clear blue sky with its myriads of fleecy clouds standing guard awaiting the solemn arrival of the Morning Sun.

September also brings with it the opening of school. What a relief! The children are no longer centering their attentions on Pop, with their constant pleading and badgering to go on this trip, or that excursion, or here, or there, on Pop's one free day a week. No longer must weary Dad drag his aching bones to the noisy amusement park, or to the youngsters' swimming pool, or to a dull movie just to please the children. Why, he can actually think about doing something for himself—like puttering around the garden, or going to a twilight doubleheader, or just sitting quietly in a gently rocking boat with a fishing line dangling in the water. Maybe he will catch a fish, and again maybe he won't—but the restful quiet and calm will give him an opportunity to sit and think, or to nap a little if he chooses. Ah yes! School is a wonderful institution!

Bowling note: Remember that the District Medical Bowling League opened its 1955–56 season at the Lafayette alleys on Friday, September 16, and all physicians and dentists who like to bowl and need the exercise are cordially invited to participate. If you know a colleague who bowls in the League, speak to him the next time you see him and inquire about joining. Bowling is good exercise for reducing the abdominal tire, and a night well spent having fun with your colleagues and friends. In addition there are beautiful trophies distributed at the end of the season at the annual Banquet and Whing Ding. So come on in; the bowling is fine!

Chuckle notes: The doctor left the patient's bedroom and joined the anxious husband in the library. "I don't like the way your wife looks," he announced with a worried frown.

"Well, doctor," said the husband, "to be perfectly honest with you, I don't care much for her looks either, but she sure takes good care of me and the children."

•

A professor in a big city school once asked his class to list some of the great time-savers.

One student put at the top of his list, "Love at first sight."

•

"Yes," said the daughter, "I have graduated, but I must get better informed in psychology, philosophy, and biology."

"Now listen to me," returned her practical mother, "I've already arranged for you a thorough course in roastology, boilology, stitchology, darnology, patchology, and general domestic hustleology. Now you can get into your working clothesology!"

•

"The rapidly increasing divorce rate," remarked the wit, "indicates that America is indeed becoming the land of the free."

"Yes," replied his prosaic friend, "but the continued marriage rate suggests that it is still the home of the brave."

•

"What shall I do?" wailed the sweet young thing, "I'm engaged to a man who just cannot bear children."

"Well," remarked the kindly old lady, "you must not expect too much of a husband."

•

The pretty bachelor girl gave her reasons for not marrying: "I have a dog that growls, a parrot that swears, a fireplace that smokes, and a cat that stays out all night. Why should I want a husband?"

J. Earl Kadan, M.D.

News and Personals

POSTGRADUATE COURSE

Part-time postgraduate instruction will be available for practicing physicians in the Washington area during the fall and winter of 1955–56, as in previous years. This will be a part of the **eleventh annual series of Intensive Postgraduate Courses** presented and sponsored by the **George Washington University School of Medicine.**

The 1955 part-time course will be entitled "Geriatrics." It will be presented in the George Washington University Hospital on Thursday evenings from 8:30 to 10:30 p.m. for some 15 sessions, beginning on October 6. Each session will consist of a formal presentation, using such visual aids as may be needed, and an informal period for questions and answers. Tuition for the course is $50.

Geriatrics is a field which has acquired increased significance in recent years because of our aging population. The discussions will cover the many facets of medical care in the elderly patient. The cardiovascular, neurological, metabolic, and psychiatric disorders will be stressed. Related information from the basic sciences will be introduced when it can support effectively the teaching plan.

The detailed schedule of the course will be distributed by mail to all physicians in the Washington area during September. Those interested in further details may call or write Dr. Thomas M. Peery, Director of Postgraduate Instruction, the George Washington University Hospital, telephone Sterling 3-7800.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia met in regular session, July 25. The Committee appointments for 1955–56, made by President W. Ross Morris, and listed in the July issue of the MEDICAL ANNALS, were approved by the Board.

President Morris submitted his resignation as a corporate member of the Hospital Service Agency, representing the Society. Dr. Oscar B. Hunter, Jr. was nominated by the Board to fill his place.

A new Finance Committee was appointed for the ensuing year, consisting of Dr. Ralph M. Caulk, President-elect, Dr. Karl C. Corley, member of the Board, and Theodore Wiprud, Secretary-Treasurer.

The Board voted that Dr. Charles Stanley White, Sr. be recognized at the Annual Dinner, during the Society's ANNUAL SCIENTIFIC ASSEMBLY, for having initiated the first ASSEMBLY in 1929. Drs. William Earl Clark and Addison M. Duval were selected as this year's recipients of the Certificates for Meritorious Service, also to be awarded at the ASSEMBLY.

Dr. William H. Sebrell, Jr., Director of the National Institutes of Health, retired from office on August 1 after 30 years of service as a commissioned officer in the Public Health Service. He was succeeded by **Dr. James A. Shannon.**

Dr. Sebrell is widely known for his studies on the B vitamins. In the 1920's, he was a member of the Public Health Service team that established the dietary origin, prevention, and treatment of pellagra, then one of America's most serious deficiency diseases. In the course of his work, Dr. Sebrell discovered the cause and cure of another deficiency disease, ariboflavinosis. He has also received scientific recognition for important findings in the dietary cause and treatment of liver disease, the effect of pantothenic acid deficiency on the adrenal glands, nutritional effects of sulfa drugs, and the cause and treatment of blood abnormalities.

Prior to assuming the Directorship of the NIH in 1950, Dr. Sebrell was Director of the Institute of Experimental Biology and Medicine, which later became the National Institute of Arthritis and Metabolic Diseases

Dr. Sebrell has accepted an appointment as research consultant to the American Cancer Society and will direct the Society's institutional research grants program.

Dr. Shannon, the new Director of NIH, has been Associate Director since November 1952 and has developed its direct research program. He is also chairman of the Service's Technical Committee on Poliomyelitis Vaccine. Prior to 1952, he was Associate Director in charge of research at the National Heart Institute, one of the seven research centers comprising the National Institutes of Health.

Dr. Shannon received his medical degree from New York University in 1929, and his Ph.D. in physiology from the same University in 1935. Following completion of his internship at Bellevue Hospital in New York in 1931, he became an instructor at New York University, and, in 1942, Director of Research Service at Goldwater Memorial Hospital. From 1946 to 1949, he was Director of the Squibb Institute for Medical Research. He came to the Public Health Service as a commissioned officer in 1949

Authority from the **Civil Service Commission** has been received to employ civilian physicians at dispensaries, infirmaries, outpatient clinics, and laboratories at the top step of each respective grade, according to Major General Silas B. Hays, the Surgeon General.

The new authority, effective immediately, allows the Army to employ civilian physicians at beginning salaries from $7,465 per annum to $11,395 per annum.

Although increasing numbers of civilian doctors are being employed in Army medical installations throughout the country, openings exist in practically every locality.

Those interested in securing employment with the Army, and who have a license to practice medicine in any of the states or the District of Columbia, should get in touch with the personnel officer at their nearest Army installation or Army medical facility of their choice.

Mr. Marion B. Folsom, formerly Undersecretary of the Treasury, was appointed **Secretary of the Department of Health, Education and Welfare** by President Eisenhower, effective August 1. He succeeds Mrs. Oveta Culp Hobby, who resigned because of her husband's ill health.

Mr. Folsom helped organize the Genesee Valley Medical Care (Blue Shield) and is a Director of the Rochester General Hospital. He served on the advisory council that participated in drafting the original Social Security Act in 1934. He has been associated with the Eastman Kodak Company in Rochester for 39 years; as Treasurer of that company, he set up its retirement system.

Dr. Chester S. Keefer has resigned as Special Assistant, for health and medical affairs, to the Secretary of Health, Education and Welfare, effective August 1. He has returned to Boston to accept a newly created post as director of medical affairs at Boston University and coördinator of professional activities at Boston University and at the Massachusetts Memorial Hospital. Dr. Keefer will continue to serve as Chairman of the National Advisory Committee for Poliomyelitis.

Mr. J. W. Holloway, who has been a headquarters staff member of the American Medical Association for nearly 30 years, has retired and will move to Smithfield, Virginia, where he was born and reared. For many years Mr. Holloway was Director of the old Bureau of Legal Medicine of the AMA. He is retaining his membership on its Committee on Medicolegal Problems.

Captain William M. Silliphant, MC, USN, has been appointed **Director of the Armed Forces Institute of Pathology,** effective August 1. He succeeds **Brigadier General Elbert DeCoursey, MC, USA,** whose tour of duty ended on that date. The assignment is normally for four years and rotates in order among the Army, Navy, and Air Force.

Ciba Pharmaceutical Products, Inc. is presenting a new half-hour **TV series, in coöperation with the**

American Medical Association, which was premiered on Monday evening, September 12, over WMAL-TV. Called "Medical Horizons," the new program will be presented each Monday, from 9:30 to 10 p.m. EDT, and will be seen on a network of 45 ABC-TV affiliated stations for a minimum of 26 weeks. The telecast will emanate from medical institutions and research centers throughout the country.

The first of six shows in the 1955–56 series of programs, presented by **Smith, Kline and French Laboratories,** will be telecast Tuesday, September 20, over the NBC-TV network at 9:30 p.m. EDT.

A new leaflet "for patients only" is being sent this month to members of the AMA. Entitled "To All My Patients," this 12-page pamphlet, for distribution to patients, explains the role of various persons on the medical team in providing good medical care. It also touches on medical and hospital fees and health insurance. Designed primarily to promote better doctor-patient relationships, the booklet provides space for the doctor's name, address, and office hours to be inserted at the end. Quantities will be available on request from the AMA Public Relations Department

Georgetown University School of Medicine has announced the receipt of three one-year grants, totaling $43,949, from the U.S. Public Health Service.

Dr. Francis M. Forster, Dean of the Medical School and Professor of Neurology, will administer $12,305 for research in the biochemistry of multiple sclerosis. Dr. Arnell Patz, ophthalmologist, received $16,644 for oxygen studies in retrolental fibroplasia. A $15,000 grant went to Dr. George N. Raines, Professor and Director of Psychiatry, for undergraduate mental health training.

A supplement to the booklet, **"Immunization Information for International Travel"** has just been released by the Public Health Service. It carries changes made in immunization requirements from June, 1954 to June, 1955. Persons having a 1954 edition of the booklet may obtain copies of the supplement, free of charge, from the U.S. Public Health Service, Division of Foreign Quarantine, Washington 25, D. C.

The booklet, including the new supplement, may be purchased for 20 cents from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Mr. Jesse Marden IV is the new **Executive Director of the Medical and Chirurgical Faculty of the State of Maryland.** He succeeds Mr. Walter N. Kirkman, who will remain with the Faculty as a part-time administrative consultant.

Mr. Marden, a native of Maryland, lives in Baltimore where the headquarters are located. He graduated in 1923 from Baltimore City College and attended the Johns Hopkins University, later graduating in law from the University of Baltimore. Before accepting his new position he was Secretary and Assistant Treasurer of the Pennsylvania Water and Power Company.

Miss Alice McWhorter, who was Superintendent of Nurses at Garfield Memorial Hospital for 20 years, died at her apartment in the Hospital, July 4. She was 86 years old.

Miss McWhorter was one of the oldest graduates of the Hospital's nursing school, having entered the nursing profession in 1896. After 20 years' service at Garfield, she retired in 1937. During World War II, she was recalled to her post until 1947, when she retired again. She continued to live at the Hospital and to serve in an advisory capacity.

PERSONALS

Dr. W. Montague Cobb was awarded the honorary degree of Doctor of Science by Amherst College at its commencement exercises in June. A graduate of Amherst (1925), Dr. Cobb is head of the Department of Anatomy at Howard University School of Medicine. Cited as a "teacher, scholar, scientist, and physician," Dr. Cobb has contributed to the medical literature on such diverse subjects as the dentition of the walrus, the effects of aging on the human skeleton, graphic technics of teaching anatomy, and the physical anthropology of the American Negro. He is a member of numerous scientific organizations and has held important posts in many of them.

Dr. Charles S. Wise, Professor of Physical Medicine and Rehabilitation at George Washington University School of Medicine, was cited by the President's Committee on Employment of the Physically Handicapped at special ceremonies, July 22, 1955. The presentation was made by Major General Melvin J. Maas, USMCR (ret.), Chairman of the President's Committee.

Dr. Wise came to Washington in 1948, after having completed a three-year Baruch fellowship in physical medicine at Harvard Medical School. At George Washington University he developed physical medicine into a department in its own right. It has become a treatment center for the medical rehabilitation program of the United Mine Workers and for others crippled for years by mine accidents and disease.

Certificates of Fellowship were awarded to 251 members of the **American College of Chest Physicians** during the 21st Annual Meeting of the College in Atlantic City, N. J., June 4. The following physicians from the District of Columbia were included in this number: Drs. S. N. Albert, Charles S. Christianson, Milton Gusack, Sol Katz, Benjamin Manchester, Donald R. Sickler, Bernard J. Walsh, and George W. Ware.

Honorary Fellowships were conferred upon Rear Admiral B. W. Hogan, Surgeon General of the Navy, and Major General Dan C. Ogle, Surgeon General of the Air Force.

All of these physicians are members of the Medical Society of the District of Columbia, the latter two being Honorary members.

Dr. Roy L. Sexton recently returned from a three months' trip to the Belgian Congo and Central Africa, where he acted as medical advisor for an expedition sponsored by the Smithsonian Institution. He has previously conducted surveys for the Government on the health of native populations.

Dr. Waldo Schmitt, Chief Curator, Department of Zoölogy, U.S. National Museum, directed the expedition, which investigated the invertebrate fauna of the Belgian Congo with special emphasis on mites and ticks as well as their plant and animal hosts.

In addition to Dr. Sexton and Dr. Schmitt, the expedition included Dr. Edward Baker, Entomology Research Branch, U.S. Department of Agriculture, who was particularly interested in the mites of importance or potential importance to agriculture in the United States, and Mr. Roy L. Sexton, Jr., Chief of the Photographic Laboratory, Walter Reed Army Hospital, who was loaned to the expedition as microphotographic specialist.

The group entered the Congo at Leopoldville on April 10, 1955, traveling by automobile, cross country, from west to east. They proceeded down the Nile to Cairo via the Sudan before returning to Washington, and visited French Equatorial Africa, Ruandi, Tanganyiki, and Uganda en route.

Dr. Louis K. Alpert has been reappointed Chairman of the Committee on Detection and Education of the American Diabetes Association, and will again head up the Association's Nation-wide Diabetes Detection Drive, which will be highlighted by Diabetes Week, November 13–19. **Dr. John A. Reed,** Second Vice President of the Association, will serve as one of the Vice Chairmen for the Drive.

Dr. William Kurstin, who was chairman of the Diabetes Detection Drive for Washington last year, has been appointed to serve on the national committee of which Dr. Alpert is Chairman.

Rear Admiral Clifford A. Swanson, MC, USN, the twentieth Surgeon General of the Navy, retired from active duty, after 30 years' service in the Medical Corps, on July 1, 1955. He is associated in the practice of ophthalmology with Dr. E. J. Cummings at 915 – 19th Street, N. W.

Admiral Swanson became Surgeon General of the Navy in 1946. Following his term of office he commanded the National Naval Medical Center, from March to October, 1951, when he was assigned duty as the District Medical Officer, Ninth Naval District, Great Lakes, Illinois. He remained at that assignment until his retirement. Admiral Swanson was elected to Honorary membership in the District Medical Society in 1947.

Dr. Katherine K. Rice has been appointed Medical Director of Linwood Children's Farm, a new institution for emotionally disturbed children, which opened June 27 in Ellicott City, Maryland.

Founded as a private, nonprofit institution, it is intended as both a research and treatment center for emotionally ill children between the ages of 3 and 10 from Washington and Baltimore, regardless of race or religion. Miss Jeanne Simmons, formerly director of group therapy at Children's House in Washington, resigned to become Director of Linwood.

Dr. Rice is a member of the research staff of Johns Hopkins Psychiatric Clinic and is an instructor in psychiatry at Howard University. She is also consultant psychiatrist to Children's House.

Dr. Fred A. J. Geier has been appointed head of the Department of Medicine at Doctors Hospital. He succeeds **Dr. Arnold McNitt,** who resigned the position after serving for 15 years.

In recognition of his work in the organization of the Department of Medicine and in the development of the residency training program, the Board of Directors of Doctors Hospital elected Dr. McNitt Emeritus Head of its Department of Medicine.

Dr. Charles P. Waite has been appointed Chief of the Health Qualifications Section and Service to the Physically Handicapped in the Medical Division of the Civil Service Commission. He will be associated with Dr. Verne K. Harvey. Dr. Waite was formerly employed at the National Bureau of Standards.

Dr. Irving Berman, until recently Medical Director of the Government Printing Office, resigned his position to take a residency in psychiatry at St. Elizabeths Hospital.

Lt. Colonel Robert C. Hecker has been assigned as Commander of the 459th Tactical Hospital Group. Andrews Air Force Base. This unit is a component of the 459th Troop Carrier Wing (Medium), the Air Force's newest reserve wing, which trains on one weekend a month at Andrews Air Force Base.

Mr. F. Royce Franzoni was named Pharmacist of the Year at the Annual Convention of the District of Columbia Pharmaceutical Association, held at Ocean City, Md., June 15–17. This award, in the form of an inscribed scroll, was inaugurated last year, when it went to Mr. Harold C. Kinner.

Mr. Franzoni is a member and Past President of the Pharmaceutical Association, the District Board of Pharmacy, and the American Pharmaceutical Association. He has served as a faculty member of George Washington University School of Pharmacy. He has been an officer of the General Alumni Association and currently is President of the Pharmacy Alumni Association of George Washington University.

Mr. Franzoni is an Associate member of the District Medical Society. He has contributed an editorial to this issue of the MEDICAL ANNALS on "Vitamins Are Pharmaceuticals."

Dr. Charles A. Hufnagel, Director of Experimental Laboratory in Surgery, Georgetown University School of Medicine, participated in a meeting of the First District Medical Society of North Carolina at Nag's Head, August 24. Dr. Hufnagel was the afternoon speaker; his subject was "Present-day Status of Vascular Surgery." In the evening he took part in a Symposium on Cardiovascular Surgery.

Dr. I. Phillips Frohman was regrettably reported in the July issue of the MEDICAL ANNALS as Chairman of the Section on Pediatrics of the American Medical Association for 1955–56. He is Chairman of the Section on General Practice of the AMA.

Dr. Walter R. Stokes will address the Cincinnati Obstetrical and Gynecological Society in Cincinnati, Ohio, October 20. He will speak on "Some Challenging Problems in the Field of Marriage and Family Counseling."

Dr. Howard T. Karsner, Research Advisor to the Surgeon General of the Navy, has been appointed General Consultant of the Medical Advisory Board of the Leonard Wood Memorial (American Leprosy Foundation).

Dr. Dorothy Jaeger-Lee, Washington pediatrician since 1940, has moved to Atlanta, Ga., where her husband, the Reverend Robert E. Lee, is now pastor of the Redeemer Lutheran Church, the largest Lutheran congregation in the South. His previous pastorate was the St. Luke Lutheran Church in Silver Spring, Md.

Dr. Jaeger-Lee is a Washingtonian, the daughter of a former member of the District Medical Society, Dr. Henry W. Jaeger, who died in 1937. She received her medical training at George Washington University, graduating in 1939. She has been Medical Director of the Child Welfare Clinic at Children's Hospital; Miss Caroline Sweeney gave a luncheon in her honor on August 24 and members of the department presented her with a gift.

Dr. Jaeger-Lee has been on the teaching staff of George Washington University since 1944, becoming Associate Clinical Professor of Pediatrics in 1949. She is a diplomate of the American Board of Pediatrics. She became an Active member of the District Medical Society in 1943 and has served as an officer and committee member; she transferred to Associate membership in 1951, when she moved to Silver Spring. She is a member of the George Washington University Medical Society and the Women's Medical Society, serving this year as President-elect of the latter.

Three physicians have moved from Washington:

Dr. George R. Farrell, otolaryngologist, is now living in Reno, Nevada, with offices at 1950 North Center Street. He has become a member of the Washoe County Medical Society.

Dr. Maryjo Roth is practicing anesthesiology at Sisters Hospital in Santa Maria, California. She is affiliating with the Santa Barbara County Medical Society.

Dr. William F. Schmidt has transferred his membership from Active to Associate because he is now practicing internal medicine at Norton, Virginia. His offices are in the Doctors Building.

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, September 26, 1955.

For Active Membership

Audrey M. Connor, George Washington University—1950
Jack Crowell, George Washington University—1951
Robert H. DeWitt, St. Louis University—1951
Maryanna E. Dotson, George Washington University—1951
Frederick D. Drew, Howard University—1952
Morton P. Eanet, George Washington University—1951
Marshall H. Jacobson, George Washington University—1948
George A. Kelser, Jr., George Washington University—1949
John Harry King, Jr., Georgetown University—1934
Marvin L. Kolkin, New York Medical College—1947
Marvin C. Korengold, University of Minnesota—1949
William G. Lofton, Sr., Howard University—1923
Daniel Mack, New York University—1946
Paul R. McCurdy, Harvard University—1949
A. Genevieve McEldowney, Women's Medical College of Pennsylvania—1944
Tanner B. McMahon, Howard University—1950
Marvin Earl Perkins, Harvard University—1946
James G. Sites, George Washington University—1947
Maurice B. Wehr, George Washington University—1947
William H. Weidman, University of Colorado—1947
Marc Lee West, George Washington University—1952

For Associate Membership

Robert L. Bregman, Georgetown University—1950
Arthur G. Compton, George Washington University—1907
Edward B. Price, Jr., University of Pennsylvania—1946
James Henry Stallings, George Washington University—1952

The following applicants for membership will be voted on at the meeting of the Executive Board, October 24, 1955.

For Active Membership

Harold I. Amory, Medical College of Virginia—1931
S. George Anagnos, University of Geneva, Switzerland—1950
Thomas J. M. Burnett, Bowman Gray School of Medicine of Wake Forest College—1946
Bette L. Catoe, Howard University—1951
Henriette Clark Chambliss, Howard University—1950
Walter A. Combs, Howard University—1948
Robert A. Dornbach, Georgetown University—1950
Henry W. Edmonds, Washington University (St. Louis)—1936
Francis J. Hailey, Georgetown University—1950
Charles E. Hannan, Jefferson Medical College—1946
Donald Arthur Johnson, George Washington University—1945
Mary Marlene Jones, Women's Medical College of Pennsylvania—1947
Fuad I. Kaibni, American University of Beirut, Lebanon—1947
Calvin B. LeCompte, Howard University—1925
John Thomas Lord, McGill University—1947
Irvin S. Miller, Columbia University—1926
Lloyd H. Newman, Howard University—1921
John C. Oliver, Howard University—1935
William E. Reefe, Georgetown University—1949
James E. Roberts, Howard University—1937
William E. Sheely, Jefferson College—1948
Richard L. Siggers, George Washington University—1949
Robert Earl Stadelman, University of Arkansas—1948
William R. Strong, George Washington University—1947
Charles E. Townsend, George Washington University—1951
Arthur M. West, Howard University—1948.
William Howard Yeager, Jr., University of Maryland—1950

For Associate Membership

George J. Cohen, George Washington University—1950
Randolph A. Frank, Vanderbilt University—1948
Allen E. Marans, Georgetown University—1949
Joseph E. Rankin, George Washington University—1946
Reber Miller Van Matre, Washington University (St. Louis) —1933

For Resident-Intern Membership

Victor H. Esch, George Washington University—1948

BOOK REVIEW

Prolonged and Perplexing Fevers.—Chester S. Keefer, M.D., Physician-in-Chief and Director, Evans Memorial, Massachusetts Memorial Hospitals; Wade Professor of Medicine, Boston University School of Medicine, and Samuel E. Leard, M.D., Assistant Visiting Physician and Assistant Member, Evans Memorial, Massachusetts Memorial Hospitals; Instructor in Medicine, Boston University School of Medicine. Price, $5.50. Pp. 248. Boston: Little, 1955.

Fever, the diagnostic touchstone of former-day physicians, is all too frequently relegated to the background in these days of "high-powered" medicine in which fancy diagnostic tests of all sorts are so readily available to the physician. It is refreshing and informative to come upon a volume concentrating on the significance of fever, that elusive variation from normal which has and will continue to puzzle physicians, despite all facilities available to them.

Whatever its cause, temperature elevation is a salient feature of any illness in which it makes its appearance. Drs. Keefer and Leard, recognizing this fact, have offered to the physician several aids in coping with the evaluation of a febrile individual. First, they offer a section dealing with the normal body temperature, its variations and chief determinants. As "normal" is one of the more perplexing zones of medicine, it is most proper that any discussion as this be introduced with an authoritative comment on the limits of "normal." From this point forward, the authors proceed to present a systematic method of appraising the cause of fever in a given individual. As the different basic etiologies are presented, illustrative cases are interpolated which point up the textural material.

While there are many "diagnostic pearls" scattered throughout this small volume, perhaps its most important contribution is that summarized in the parting words of the authors: "A carefully planned program of investigation should be worked out in all cases of obscure fever." What these writers present is, in effect, just such a scheme for orderly investigation. And a worthwhile scheme it is, as the careers of these authors have made them aware of many of the pitfalls of diagnosis, and they pass these along in easy-to-understand fashion.

The physician who has the opportunity to read this book will face the next "FUO" with more confidence in his ability to steer a straight course toward the correct answer, losing a minimum of time in the hesitation that comes from failure to establish a systematic approach at the outset.

Kenneth M. Moser, M.D.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Differential Diagnosis—The Interpretation of Clinical Evidence. A. McGehee Harvey, M.D., Professor of Medicine and Head of the Department of Internal Medicine, The Johns Hopkins University School of Medicine; Physician-in-Chief, The Johns Hopkins Hospital, and James Bordley III, M.D., Director, Mary Imogene Bassett Hospital, Cooperstown, New York; Clinical Professor of Medicine, Columbia University, New York; Clinical Professor of Medicine, Albany Medical College. Price, $11.00. Pp. 665. Philadelphia: Saunders, 1955.

Collected Papers of The Mayo Clinic and the Mayo Foundation, Volume XLVI-1954. Edited by Richard M. Hewitt, B.A., M.A., M.D.; A. B. Nevling, M.D.; John R. Miner, B.A., Sc.D.; James R. Eckman, A.B., M.A., Ph.D.; M. Katharine Smith, B.A.; Carl M. Gambill, A.B., M.D., M.P.H.; Florence Schmidt, B.S.E.; and George G. Stilwell, A.B., M.D Price, $12.50. Pp. 843, with 189 illustrations. Philadelphia: Saunders, 1955.

The Medical Significance of Anxiety. Richard L. Jenkins, M.D., Chief, Psychiatric Research, Psychiatry and Neurology Service, Veterans Administration, Washington 25, D.C. Price, paper, $1.00. Pp. 46. Washington: Biological Sciences Foundation, Ltd., 1955.

The Practice of Dynamic Psychiatry. Jules H. Masserman, M.D., Professor of Neurology and Psychiatry, Northwestern University, Chicago, Illinois. Price, $12.00. Pp. 790. Philadelphia: Saunders, 1955.

Handbook of Pediatrics. Henry K. Silver, M.D., Associate Professor of Pediatrics, Yale University School of Medicine, New Haven, Connecticut; C. Henry Kempe, M.D., Assistant Professor of Pediatrics, University of California School of Medicine, San Francisco, California; and Henry B. Bruyn, M.D., Assistant Professor of Pediatrics and Medicine, University of California School of Medicine, San Francisco, California; Assistant Clinical Professor of Pediatrics, Stanford University Medical School, San Francisco, California. Price, paper, $3.00. Los Altos, Calif.: Lange, 1955.

Clinical Disorders of Hydration and Acid-Base Equilibrium. Louis G. Welt, M.D., Professor of Medicine, Department of Medicine, University of North Carolina. Price, $6.00. Pp. 262. Boston: Little, 1955.

Essentials of Orthopaedics, 2nd ed. Philip Wiles, M.S. Lond., F.R.C.S. (Eng.), F.A.C.S., Senior Orthopaedic Surgeon, The Middlesex Hospital, London, and King Edward Memorial Hospital, Ealing; Lecturer in Orthopaedic Surgery, The University of London; President Elect, The British Orthopaedic Association. Formerly Hunterian Professor, Royal College of Surgeons of England; President, Orthopaedic Section, Royal Society of Medicine; Examiner in Surgery, University of London; Examiner, Diploma of Physical Medicine; Honorary Orthopaedic Surgeon, Royal Surrey County Hospital; Honorary Assistant Surgeon, Queen's Hospital for Children; Brigadier, Consultant Surgeon (Orthopaedics), Middle East Force, and Persia and Iraq Force; Consultant Surgeon, Eastern Command, India, and 12th Army S.E.A.C. Price, $10.00. Pp. 538, with 7 color plates and 393 text figures. Boston: Little, 1955.

Ciba Foundation Colloquia on Ageing: Volume I, General Aspects. G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Margaret P. Cameron, M.A., A.B.L.S., Editors for the Ciba Foundation, assisted by Joan Etherington. Price, $6.75. Pp. 255, with 38 illustrations. Boston: Little, 1955.

Ciba Foundation Colloquia on Endocrinology: Volume VIII. The Human Adrenal Cortex. G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Margaret P. Cameron, M.A., A.B.L.S., Editors for the Ciba Foundation, assisted by Joan Etherington. Price, $10.00. Pp. 665, with 227 illustrations. Boston: Little, 1955.

The Adolescent Exceptional Child—A Realistic Approach to Treatment and Training. Proceedings of the 1954 Spring Conference of the Child Research Clinic of The Woods Schools, held in New Orleans, Louisiana, April 9 and 10, 1954, in Three Sessions. Sponsored by The Woods Schools, a non-profit residential school for exceptional children. Pp. 79. Langhorne, Pa.: The Woods Schools, 1954.

JAMES ALEXANDER LYON, M.D., F.A.C.P.

(1882–1955)

Dr. James Alexander Lyon died August 4, 1955 at Emergency Hospital, ending a long and successful career in both military service and private practice.

Dr. Lyon was born in Broome County, New York, February 28, 1882, to Henry and Katherine Murray Lyon. He was educated in public schools and by private tutoring. During his student days at both Ohio and Syracuse Universities he played varsity football.

Dr. Lyon received his degree in medicine from Maryland Medical College, Baltimore, in 1906, and interned at Bay View Hospital in Baltimore. He was assistant physician at Loomis Sanatorium, Liberty, New York, 1907–09, and Assistant Superintendent at the Massachusetts State Sanatorium for Tuberculosis, Rutland, from 1909 until 1916.

He studied under Drs. B. T. Parsons Smith and John Parkinson at the National Hospital for Diseases of the Heart in London in 1923; with Professors K. F. Wenckeback, H. Winterberg, and C. J. Rothberger at the University of Vienna in 1924; and with Dr. Paul D. White, of the Massachusetts General Hospital, Boston, in 1926.

Dr. Lyon entered the military service in 1916 as a First Lieutenant, first serving in the Mexican Border service, later with the American Expeditionary Forces in France, from 1917 through 1919. He participated in the battles of Champagne-Marne, Aisne-Marne, St. Mihiel, Ille de France, Lorraine, Defense of Toul, and Meuse-Argonne. Following his combat service, he was chief of medical service at various base hospitals; his last assignment was post surgeon for the Third U.S. Infantry at Fort Wayne, Detroit. He resigned in 1925 to enter private practice in Washington, D. C.

For his distinguished Army service, Dr. Lyon received citations from both the United States Army and the French Army Corps. He was decorated with the Silver Star, Purple Heart, Military

Order of Carabao, *Croix de Guerre* with Gold Star (France), and the Abdon Calderon (Ecuador). He also had received a number of campaign medals.

He was assistant physician of the Outpatient Department at Johns Hopkins Hospital from 1925 to 1926. He was Professor of Clinical Cardiology at Georgetown University School of Medicine from 1929 to 1940. During the latter years he was also attending cardiologist and Chief of the Cardiac Clinics at Emergency and Children's Hospitals, and consulting cardiologist to Doctors, Homeopathic, and Columbia Hospitals.

Dr. Lyon became an Active member of the Medical Society of the District of Columbia in 1926, participating in many of the Society's activities. In 1940 he was chairman of the program committee for the Annual Scientific Assembly, which that year was devoted to a Postgraduate Course in Cardiovascular-renal Diseases. This was the Society's most pretentious program up to that time, and for it Dr. Lyon secured cardiologists of national reputation.

He was a diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, a member of the American Medical Association, American Association for the Advancement of Science, American Heart Association, Association of Military Surgeons of the United States, and many, many other scientific and military organizations, both national and local. He wrote extensively, having contributed articles for publication in the fields of internal medicine and cardiology. Among the social clubs of which he was a member were the Army-Navy, Metropolitan, Chevy Chase, and the Woodmont (Md.) Rod and Gun.

Dr. Lyon resided at 1028 Connecticut Avenue, N.W. and at Glenview Farm in Rockville, Maryland. Until a few months ago he maintained his offices at 1801 Eye Street, N.W.

His wife, Mrs. Irene Moore Lyon, died in September, 1950. He leaves one daughter, Mrs. Elizabeth Lyon Collobolletta, of Hollywood, Florida; two brothers, John V. Lyon, of New York City, and F. Murray Lyon, of West Hartford, Conn; and two sisters, the Misses Mary and Isabelle Lyon, of Goshen, N. Y.

AUBREY OTIS HAMPTON, M.D.
(1900–1955)

Dr. Aubrey O. Hampton, for many years Chief of Radiology at Garfield Memorial Hospital, died July 17, 1955, at his home in North Weare, New Hampshire, where he had recently retired because of ill health. Dr. Hampton had had a notable career in radiology. He was a senior partner in the firm of Groover, Christie and Merritt from 1946 until June of this year.

Dr. Hampton was a native of Texas, having been born in Copeville, February 10, 1900. He graduated from the grade and high schools of Copeville and studied at the Rice Institute in Houston and at Baylor University in Waco, Texas. He received his degree in medicine from the latter institution in 1925. Following this he interned at St. Paul Sanitarium and Parkland Hospital in Dallas, and came East to serve his residency at Massachusetts General Hospital in Boston.

Dr. Hampton was roentgenologist at Massachusetts General Hospital from 1928 to 1946, serving as Chief in Radiology from 1941. During this period, from 1928 to 1941, he was on the faculty of Harvard Medical School as Instructor in Radiology, later appointed Assistant Professor in Radiology (1941–46).

During World War II he was commissioned Colonel in the Army Medical Corps, serving from 1942 to 1946 as Chief in Radiology at Walter Reed Army Hospital. For many years following the War he was chief radiologist at Garfield Hospital.

Dr. Hampton contributed a number of articles in the field of radiology to medical journals.

Dr. Hampton was certified by the American Board of Radiology. He had been an Active member of the Medical Society of the District of Columbia since 1946. He was a member of the American Medical Association, the American Roentgen Ray Society, the Radiological Society of North America, and the American College of Radiology. He also belonged to the Harvard, Army and Navy, and Congressional Country Clubs.

Surviving him are his wife, Mrs. Marian Hampton; a son, Aubrey Hampton, Jr., of North Weare, N. H., and a daughter, Miss Julie Hampton, of New York.

Until he moved to New Hampshire his home was at 2440—16th Street, N.W.

JOHN ALFRED NELSON, B.Sc., LL.B., LL.M., M.D.

(1887–1955)

Dr. John A. Nelson, formerly Chief Medical Advisor to the President of the Board of Appeals for the Veterans Administration, died August 13, 1955 at his home, 1725—17th Street, N.W. He retired in January, 1954 and for a brief period had lived in West Palm Beach, Florida.

Dr. Nelson was born on a ranch in Loup County, Nebraska, January 15, 1887. He received his Bachelor of Science degree from Oklahoma A & M College, where he was graduated first in his class. He came to Washington as a young man with the expectation of studying for a career in law. He subsequently graduated from National University, receiving the degrees of both Bachelor and Master of Laws. He then went on to study medicine at Georgetown University, securing his medical degree in 1919. He interned at Providence Hospital.

Dr. Nelson studied psychiatry at the University of Vienna and at other European educational institutions. He was able to use his knowledge of psychiatry and forensic medicine in Government service as well as in private practice. A diagnostician, his offices were formerly at his home address and in the Northumberland Apartments.

Dr. Nelson served in the Naval Reserve during World War I. He became a member of the Medical Society of the District of Columbia in 1921. He was also a member of the American Medical Association, the District Bar Association, and the Federal Bar Association. He was a 33rd degree Mason.

Survivors include two brothers and two sisters: Dr. C. W. Nelson, of Del Ray, Fla.; Dr. Carl F. Nelson, West Palm Beach, Fla.; Miss Gail E. Nelson, who lived with her brother at the 17th Street address; and Mrs. Lila N. Chandler, 5002 Hampden Lane, Bethesda, Maryland.

JAMES CARTWRIGHT WYNKOOP, M.D.

(1867–1955)

Dr. James C. Wynkoop, general practitioner in Washington for 51 years, died, August 3, 1955, at his home, Wynwood, in Leesberg, Virginia. Dr. Wynkoop had retired to Wynwood four years ago.

Dr. Wynkoop was a Virginian, born in Leesburg, January 9, 1867, the son of Henry and Catherine Corr Wynkoop. He attended the University of Virginia and later studied medicine at the Maryland Medical College, now a part of the University of Maryland, graduating in 1892. He interned at the University Hospital in Baltimore, and continued his studies in internal medicine at the New York Post-Graduate Medical School of the New York University. He practiced for eight years in Hillsboro, Va., before he came to Washington.

Dr. Wynkoop had courtesy privileges at all the Washington hospitals. He became a member of the Medical Association of the District of Columbia, which was later amalgamated with the Medical Society of the District of Columbia, in 1904, and a Life member of the latter in 1945. He was also a member of the American Medical Association and the Southern Medical Association. He belonged to the Washington Gun Club and had served as its president.

He leaves his wife, Mrs. Elizabeth De Butts Wynkoop; three sons, James C. Wynkoop, Jr., 3220 Wisconsin Avenue, N.W., Thomas Kelley Wynkoop, 3707 Woodley Road, N.W., and Dr. John DeButts Wynkoop, of Leesburg and Washington; and two daughters, Mrs. Nancy W. Warner and Miss Katharine C. Wynkoop, both of Leesburg.

CARL S. KEYSER, M.D.

(1872–1955)

Dr. Carl S. Keyser, Washington physician for about 55 years, died, July 22, 1955 at his home, 1306—20th Street, N.W., after a long illness.

A native Washingtonian, Dr. Keyser was born, February 14, 1872, the son of Peter Louis and Laura Mueller Keyser. He graduated from Columbian Medical School (now George Washington University) in 1898 and later studied at the University of Heidelberg, Germany.

Dr. Keyser first began practicing medicine about the turn of the century on New York Avenue, N.W. Later, he lived and maintained his offices at 1218—19th Street, N.W. For more than 20 years his office was at his home on 20th Street.

During World War I Dr. Keyser served on the Draft Examining Board. He was formerly on the staff of Garfield Memorial Hospital.

He became an Active member of the District Medical Association in 1899 and of the Medical Society in 1902, and a Life member of the Society in 1940. He was a member of the American Medical Association. He also belonged to the Association of Oldest Inhabitants.

Surviving him are his wife, Mrs. Mary Procter Keyser; a brother, Adolph Keyser, 1777 Lanier Place, N.W.; and two sisters, Mrs. Christian Heurich, 1307 New Hampshire Avenue, N.W., and Miss Ann M. Keyser of the same address.

EUGENE ARTHUR TAYLOR, M.D.

(1884–1955)

Dr. Eugene A. Taylor, otolaryngologist in Washington since 1913, died suddenly, July 22, 1955. His offices and home were at 1746 K Street, N.W.

Dr. Taylor, the son of Eugene G. and Elizabeth Faurer Taylor, was born at Miller School, Virginia, May 27, 1884. He received his early education at Miller School and graduated from the University of Virginia in 1908. He interned at the Martha Jefferson Hospital in Charlottesville, Virginia, the following year and at Emergency Hospital in Washington in 1909–10. He took his residency training in otolaryngology at Episcopal Eye, Ear and Throat Hospital, from 1911 to 1912, and continued on the Hospital staff as associate physician in otolaryngology.

Dr. Taylor was associated with the D. C. Health Department's chest clinic for 32 years. During both World Wars I and II he served on the Selective Service Board.

A member of the Medical Society of the District of Columbia since 1915, Dr. Taylor became a Life member this year. He was a member of the American Medical Association. In past years, he had been active in the Civitan Club.

Dr. Taylor is survived by his wife, Mrs. Zoua Wood Taylor, and a sister, Mrs. Andrew J. Clark, of Miller School, Virginia.

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STUDIES IN SICKLE CELL ANEMIA*†

A Clinical Review

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HENRY T. CARRINGTON, M.D.
ROLAND B. SCOTT, M.D.
Washington

THE purpose of this article is to present a fairly comprehensive review of the current knowledge on sickle cell anemia. The literature on this subject has increased considerably since the comprehensive reports of Margolies,[1] Leavell and MacIlwaine,[2] and others. In this article we shall emphasize the clinical aspects of the subject which are of chief interest and value to the practitioner.

HISTORICAL BACKGROUND

Sickle cell anemia‡ represents a relatively new clinical entity. In 1910 Herrick[3] reported the first case in a 20-year-old Negro male student from the West Indies in a paper entitled "Peculiar Elongated and Sickle-Shaped Red Blood Corpuscles in a Case of Severe Anemia." Herrick's description of his patient included characteristic clinical and hematologic manifestations.

Six years prior to Herrick's contribution Dresbach[4] reported the finding of elliptical cells in a 22-year-old Mulatto patient who exhibited rheumatic symptoms. However, the patient died before an acceptable diagnosis was established.

In 1905 Sergent and Sergent,[5] who examined the blood of a large number of natives of Algiers (Moors, Arabs, Berbers and Negroes) found that 5.1 per cent of 234 malarial native patients had "demilune" erythrocytes. These authors considered the "demilune" erythrocyte to be characteristic of the blood picture of malaria.

Therefore, in view of the inadequacy of earlier reports, Herrick is given credit for the first authentic report of SCA as a clinical entity. In 1911 Washburn[6] described the second case, and in 1915 Cook and Myer[7] described the third case. Mason[8] is credited with giving the active disease its name in a presentation of the fourth case in 1922. In 1923 Sydenstricker[9] published the first necropsy findings in SCA. More recently

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* From the Department of Pediatrics, Howard University College of Medicine, and the Pediatric Service of Freedmen's Hospital, Washington, D. C.

† This is the second of a series of comprehensive reference articles on topics of current medical interest prepared by invitation for the MEDICAL ANNALS.

‡ Hereafter abbreviated SCA.

Diggs[10, 11] and others have written extensively on the pathology of this disease.

Huck[12] demonstrated that the sickling characteristic resided in the erythrocytes and not in the plasma. Hahn and Gillespie[13] showed that the shape of the erythrocytes in this disease is reversible and depends essentially upon the degree of oxygenation of the hemoglobin. Adequate oxygen produces the normal discoid form, whereas in reduced oxygen tension the erythrocytes assume the sickled form.

Notable contributions concerning the chemical characteristics of the abnormal hemoglobin found in SCA have been made by Pauling, Itano, Singer and Wells[14, 15] and also by Singer, Chernoff and Singer.[16] Their studies laid the groundwork for the identification of several new types of hemoglobin and the discovery of previously unrecognized hemolytic syndromes. These will be discussed in some detail later.

INCIDENCE

There are numerous reports on the incidence of sickling in the American Negro. In a report published in 1937 Cardozo[17] tested 1,263 Negroes and found the incidence of sickling to be 9.42 per cent. In 1951 Margolies[1] summarized the reported surveys in the United States and found that in 22,170 Negroes tested in this country the incidence was 9 per cent. It has been estimated that the incidence of SCA in the U.S.A. is about 2 per 1,000 Negroes.[18] The incidence ratio of SCA to the sickle cell trait is usually expressed as 1 to 40.

Studies on African Negroes show that in a large area extending roughly across the middle third of Africa the frequency of sickling is about 20 per cent. The incidence varies greatly, however, from tribe to tribe with a significant decline in frequency as one proceeds either north or south of this area.[19] The finding of a high incidence of sickling (31.3 per cent) in the bloods of tribes in southern India has been recently reported.[20]

Age. In general, SCA is most commonly observed in children and young adults. However, there are reports of the disease in an infant as young as 19 days old[21] and in an adult who lived 78 years.[22] In a review of 63 cases of SCA in children from Freedmen's Hospital and the District General Hospital we observed that the average age of onset of symptoms necessitating hospitalization was 4.7 years.[23] SCA is rarely diagnosed in the newborn period. There is apparently a relative suppression of the sickling phenomenon in newborn infants. In a study of 262 newborn infants we observed an incidence of sickling of 3.4 per cent as compared to 7.6 per cent in older children.[24] This relative suppression of the sickling phenomenon in the blood of very young infants is attributed by Watson et al[25] to the presence of fetal hemoglobin.

Sex. There appears to be no particular sex predilection for either SCA or sickle cell trait.[26]

Geographical distribution and race. SCA is a disease affecting predominantly members and descendants of the Negro race. Most of the case reports have originated in the United States, but a number of reports have come from other lands including Africa, Cuba, Central America and South America.

More than 40 cases of SCA have been reported in members of the white race. The majority of the cases reported in white individuals involved persons of Mediterranean origin, Italians, Greeks, and Sicilians. It has been suggested that an admixture of Negro blood occurred with certain members of the Mediterranean races at some time in the remote past.* In this regard it is also interesting to keep in mind the fact that it has now been demonstrated that another hemolytic syndrome (sickle cell-thalassemia disease), the clinical symptomatology of which is very similar to ordinary SCA, may be found in the offspring where 1 parent carries the gene for the sickle cell trait and the other parent carries the gene for thalassemia minor.[27, 28, 29] This

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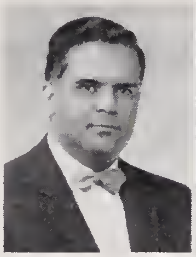
* It has been suggested, however, that the sickling condition may have been introduced into Africa and the Mediterranean region by migrating Vedic people from Ceylon and southern India (LEHMANN, H.: Man, 1953, **53,** 9).

Drs. Angella D. Ferguson, Henry T. Carrington, and Roland B. Scott, authors of the second paper in our series of comprehensive reference articles on topics of current medical interest, are all graduates of Howard University College of Medicine. They are also members of the teaching staff in pediatrics at Howard University.

Sickle cell anemia has long been a particular interest of Dr. Ferguson's. She has written 10 articles, many on this subject.


Dr. Carrington

Dr. Ferguson

Dr. Scott

Dr. Carrington served a two-year residency in pediatrics at the District of Columbia General Hospital. He is an instructor in pediatrics at both Howard University and the D. C. General Hospital.

Dr. Scott, Professor and Head of the Department of Pediatrics at Howard University, is also chief pediatrician at Freedmen's Hospital and attending pediatrician at D. C. General Hospital. A diplomate of the American Board of Pediatrics, he was Chairman of the Section on Pediatrics of the National Medical Association in 1952 and 1953. He is particularly interested in sickle cell anemia, in problems of growth and development, and in pediatric allergy.

Members of the committee responsible for these special reference articles agree that the subject this month has been very well handled by these capable authors.

recently described syndrome may also account for the increased frequency of "sickle cell anemia" in white individuals with Mediterranean ancestry.

Sickling and malaria. It has been suggested by Allison[30] that the sickle cell trait affords a considerable degree of protection against subtertian malaria. He concluded that the abnormal sickled erythrocytes are less easily parasitized by *P. falciparum* than are normal erythrocytes. He, therefore, stated that those individuals who are heterozygous for the sickle cell gene (sickle cell trait) will have a selective advantage in regions where malaria is hyperendemic. He thought this situation may explain why the sickle cell gene may remain common in certain regions in Africa in spite of the elimination of genes in patients dying of SCA.

In commenting upon Allison's work, Foy and his colleagues[31] state: "There may be a negative association between sickling and mortality from malaria, but we cannot agree that it has yet been proved. We are not altogether convinced that an association between parasite density and sickling has been demonstrated, but even if it has we cannot agree that parasitic density and mortality from malaria can be equated."

Genetics. In 1923 Huck[12] advanced the theory of a dominant gene to explain the hereditary nature of SCA. This theory was accepted for several years but has now been abandoned in favor of the recent theory of Neel[32] and Beet[33] which postulates that the sickling gene is heterozygous in individuals with the sickle cell trait and homozygous in those with SCA.

The genetic possibilities in the offspring with respect to marriages between individuals bearing the sickle cell trait, SCA, and those without genes for sickling are shown in figure 1.[34]

A. When 1 parent has the sickle cell trait and the other has no gene for sickling, the children may have either normal blood or the sickle cell trait, but none will have SCA.

B. When the blood of both parents bears the sickle cell trait, the offspring may fall into 3 possible categories if the family is large. Statistical studies of a large number of such matings show the proportionate number of such children

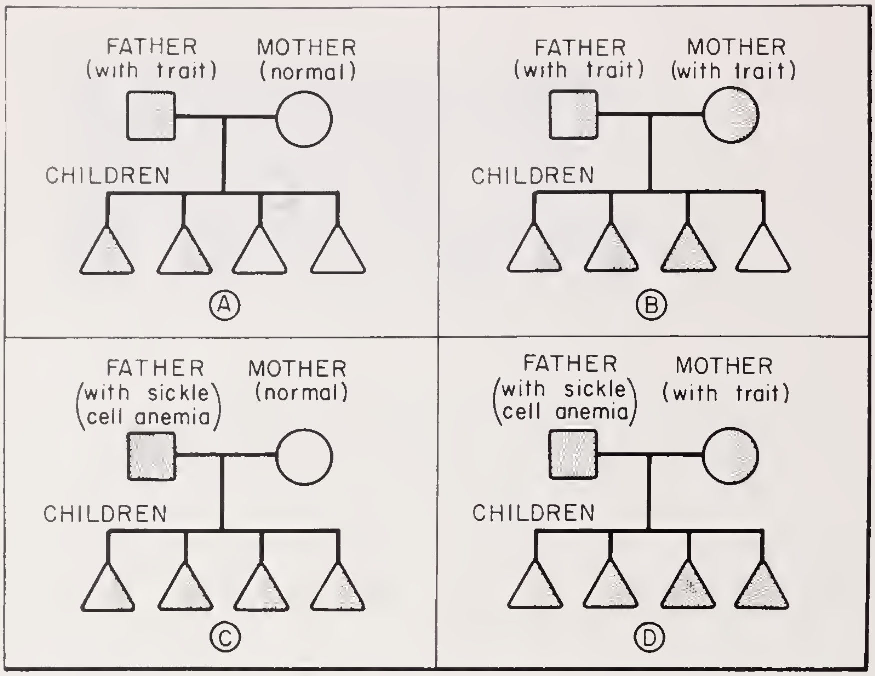


Fig. 1. Inheritance of SCA and the sickling phenomenon.

to be one fourth with normal blood, one half with sickle cell trait, and one fourth with SCA. These 3 types may or may not be represented in any individual family, depending upon its size.

C. If persons with SCA marry individuals whose blood is negative for sickling, then all of their children will have the trait but none will have SCA.

D. If persons with SCA marry those with the sickle cell trait, half of their children may be expected to have SCA and the other half will bear the sickle cell trait.

If 2 persons with SCA marry, it is unlikely that they will be able to produce children. If they do, all will have SCA.

Clinical Types

Using the term sickle cell disease broadly to include all the disorders in which manifestations of disease seem attributable to the presence of homozygous or heterozygous S hemoglobin, the most frequently observed types in order of their incidence are shown in table 1.

TABLE 1

Types of Sickle Cell Disease

Clinical Terminology	Abnormal Hemoglobin	Clinical Features
1. Sickle cell trait	S–A	Ordinarily asymptomatic; there is no anemia, and no treatment is ordinarily required.
2. Sickle cell anemia	S–S	The most common type, which is the subject of this review.
3. Sickle cell-hemoglobin C disease	S–C	Characterized by mild anemia, splenomegaly, pains and target cells. Treatment is symptomatic, and blood transfusions are rarely necessary.[35]
4. Sickle cell thalassemia	S, F, A	Moderate to severe anemia, crises, sickling on direct smear, target cells. Treatment is the same as that for SCA.

There are other possible combinations of S hemoglobin with other abnormal hemoglobins,* but at the present time they are rare.

Clinical Manifestations

The symptoms of SCA are protean in their manifestations, which may include fever, pallor, arthralgia, icteric sclerae, abdominal pain, fatigue, weakness, anorexia, enlargement of the liver, spleen and heart, hematuria, and ulcers of the skin.

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* In addition to the ones mentioned above, other abnormal hemoglobins which have been described to date are D, E, G and H.

Symptoms are rare in the first 6 months of life, but in 50 per cent[36] of the cases of SCA they are present by the age of 2 years. Severe episodes are called crises, which may be defined as characteristic bouts of pain and fever in association with the sickling phenomenon, whether or not there is an associated increase in the rate of blood destruction. A crisis may therefore occur without exacerbation of the hemolysis and indeed without any known precipitating cause.[36] In childhood, crises are often associated with intermittent infection. Clinically, crises may be classified into 3 types:[37, 38]

1. "Thrombotic," "infarctive," or "symptomatic" crisis—pain over the area involved, fever, mild associated infection; no change in hemoglobin or other laboratory findings.

2. "Aregenerative" or "aplastic" crisis—pain, rapid and severe anemia, drop in reticulocytes, hypoplastic bone marrow.

3. "Hemolytic" crisis—pain, fever, increased rate of blood destruction, drop in hemoglobin and red blood cell levels, often with no change in reticuloctyes and with a hyperplastic bone marrow.

GROWTH AND DEVELOPMENT

Deviation from the normal habitus may be expected whenever a relative anoxia of long duration has been present during the period of growth.[1] The weight of patients with SCA is usually below the median for normal children.[23] They have a linear habitus,[1, 39] with narrow shoulders and hips, which makes them appear taller than normal, but they are usually of less than normal height. The arms, legs, hands and feet are long and thin. The fingers are long and tapering.[1, 40, 41] The relationship between span and height is normal. There is usually a prominent dorsal kyphosis and a lumbar lordosis. The neck and trunk are short with an increase in the anteroposterior diameter of the chest producing the "barrel chest." The enlarged liver and the lordosis produce a prominent abdomen.

Adult males may show signs of hypogonadism such as hypoplasia or atrophy of the testes, scanty facial, pubic and chest hair, and a high pitched voice. The most striking features in children with SCA are the barrel chest, the protruding abdomen, and the thin arms and legs (figure 2).

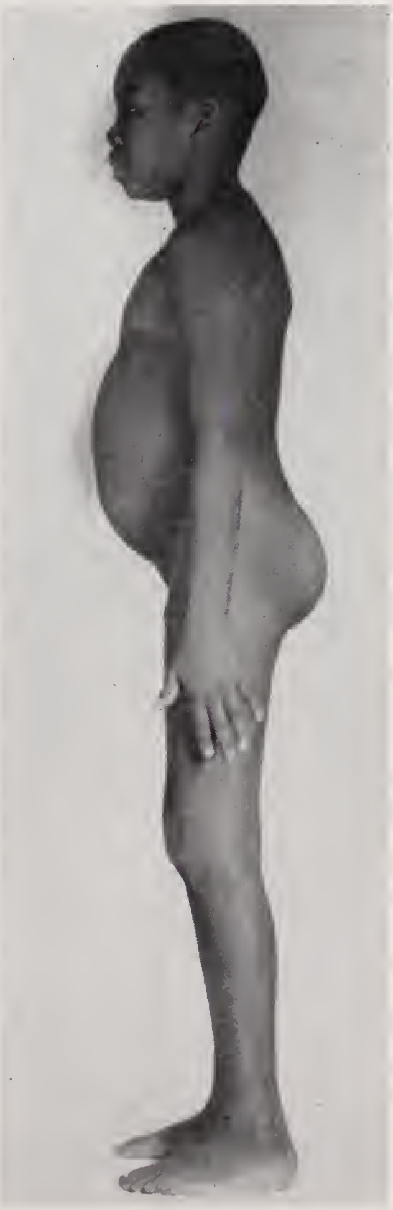

FIG. 2. Typical SCA habitus in a 14-year-old male. Note the lumbar lordosis, prominent abdomen, long, spindly extremities and tapering fingers.

The asthenic habitus of patients with the usual form of SCA is in contrast to the majority of patients with the newly described genetic variant forms of this disease. The patients in the latter category tend to have a rather stocky build without leg-trunk disproportion.

PHYSICAL FINDINGS

Skin. Chronic leg ulcers are commonly seen in adults with SCA,[1] the most common site being the inner aspect of the leg just above the ankle. Ulcers, however, may occur anywhere on the extremities. The ulcers are usually about 2 cm. or more in diameter, discrete, sharply marginated, round or oval, and "punched out" in appearance. They may be shallow or deep. At times the borders are elevated and sometimes irregular. There is a granulating base which is said to suppurate occasionally. In some cases the ulcer may be covered by a dry serous or seropurulent crust. The ulcers are usually indolent, healing slowly over a period which varies from 3 months to a year. The scar which forms is thin, atrophic, pliable, smooth, and glossy, with a depigmented center and a pigmented areola.

The ulcers may appear spontaneously following trauma or infection. The cause of the ulcers is not understood. A thrombotic phenomenon with blockage of the blood supply is generally postulated to be the cause. There is no histologic evidence to support this theory.

SCA should be considered in the differential diagnosis of chronic leg ulcers in the Negro. Ulcers are seldom seen in children.[40] McGavack and Nussbaum[42] give the average age of onset as 14 years. In a series of 65 cases of SCA, we[23] observed a leg ulcer only once in a 14-year-old boy. This ulcer healed slowly after several months of treatment.

Multiple, tender, irregular subcutaneous nodules 1 to 5 cm. in diameter have been reported over the legs and thighs.[1, 42]

Eyes. The sclerae are often jaundiced and tend to become more icteric during crises. The color is described as greenish-yellow. An oriental slant of the eyes has been reported.[41]

In nearly every case of SCA there is tortuosity of the retinal veins.[1, 41] This tortuosity is seldom evident in the variants of SCA. There is a lesser degree of tortuosity of the arteries. The optic discs are normal and no arteriovenous defect, hemorrhages or exudates have been noted to be present. Vitreous hemorrhage has been reported.[43]

Other eye signs may be secondary to involvement of the central nervous system by thrombi. Hughes et al[44] have reported the infrequent occurrence of nystagmus, transitory blindness, ptosis, diplopia, left homonymous hemianopsia, and paralysis of the third and fourth cranial nerves.

Teeth. The mandible and the maxilla may play a role in hematopoiesis and so reflect any generalized disturbance of the bone marrow.[45] The latter becomes hyperplastic and expands, causing a resorption of medullary bone. This shows on the roentgenogram as increased porosity. A reduction in the thickness of the compact layer of bone increases the osteoporosis and also results in a more prominent visualization of the remaining trabeculae.

The compact bone (lamina dura) which surrounds the roots of the teeth usually appears to be prominent and intact. The mobility of the teeth should be within normal range.

The changes on X-ray examination are in the form of osteoporosis.[41,45] The decrease in the number of trabeculae produces an increased radiolucency. The remaining trabeculae are sharply defined and surrounded by multisized and irregularly shaped marrow spaces. The osteoporosis is present in the alveolar bone as well as the spongiosa of the mandible.

The decrease in trabeculations is especially striking in the alveolar bone between the roots of the teeth. These trabeculations are usually in horizontal rows creating an accentuated step-ladder-like effect. In areas where no teeth are present, there is usually a decrease in the number of trabeculae, but the stepladder effect is not present.

The lamina dura surrounding the teeth is usually distinct and dense. The shape of the crowns and the roots of the teeth and their periodontal attachment are usually normal.

Lungs. Thromboses and infarcts may occur in the lungs as well as in other viscera of patients with SCA.[1, 41] Multiple pulmonary thromboses result in increased pulmonary resistance and consequent increased pulmonary blood pressure, sometimes resulting in cor pulmonale with congestive failure.[46] This may account for the episodes of "pneumonitis" or "pneumonia" not specifically due to the bouts of infection that usually occur in SCA. Calcification may follow in the thrombi and produce radiopacities suggestive of healed miliary tuberculosis or histoplasmosis.

Heart. Friedberg[47] states that SCA is the commonest anemia observed in which the degree of anemia is intense enough and of sufficient duration to cause cardiac symptoms. A basis for the cardiac involvement was postulated by Huck[12]:

1. Chronic anoxia of the myocardium because of severe anemia of long duration.
2. Circulatory stasis producing thrombosis of the small and the medium-sized arteries of the lungs which progress to an organized state. This may increase the pressure in pulmonary arteries and lead to right ventricular enlargement and to right heart failure.
3. Circulatory stasis producing thrombosis of the coronary arterioles resulting in damage and consequent scarring of the myocardium.
4. The severe anemia which produces a chronic anoxia of the body tissues and increases the demand for more oxygen and thus leads to an increase in the cardiac output which may cause the myocardium to hypertrophy and dilate.

Klinefelter[48] and others have emphasized that cardiomegaly and various cardiac murmurs are present in almost all patients with SCA. Rheumatic fever has frequently been diagnosed because of cardiac abnormalities concurrent with joint manifestations.

The usual findings[1, 41, 48] referable to cardiac involvement are palpitation, tachycardia, enlargement,[49] murmurs, ankle edema, hepatomegaly and basilar pulmonary rales. Dyspnea on exertion and orthopnea are rare.

The roentgenogram shows cardiac enlargement sometimes with a typical mitral configuration. Frequently the right and the left ventricles are enlarged to produce a globular heart which in children may return to normal size following a crisis or a blood transfusion.

Nearly all cases of SCA present a cardiac murmur, which in 50 per cent is systolic. A third heart sound may occur at the apex. Increased pulmonary pressure causes an accentuated pulmonic second sound. The myocardial weakness and dilatation may produce a relative mitral stenosis, or the mitral ring may dilate with the myocardium to produce a relative mitral insufficiency.

Severe substernal pain may be due to coronary insufficiency caused by the severe anemia, but this will produce no electrocardiographic changes unless there is preëxistent coronary artery disease. The usual changes are nonspecific as in any anemia and may include ventricular extrasystoles and sinus arrhythmias which are frequent. An increased PR interval or first degree A.V. block is common. Nonspecific T-wave changes attributable to myocardial ischemia have been reported.[1]

Liver. Green and co-workers[50] studied 50 cases of SCA and 21 autopsies of patients dead from this disease. Clinical evidence of hepatic dysfunction was frequent and there were a few cases of severe liver disease. The disorder of the liver appears to be a specific manifestation of SCA. Necropsy studies suggest that the dysfunction of the liver probably is due to severe impairment of the hepatic blood flow from the combined effects of anemia, the sickling of red blood cells in the liver sinusoids, and obstruction by Kupffer cells from phagocytized red cells.

Clinically the liver is palpable in most patients under 10 years of age, but in patients in the second and third decades the liver is not usually enlarged. In most cases the degree of liver enlargement is small, but the most marked enlargement may occur in the third or fourth decade in association with impaired hepatic function. A previously nonpalpable liver may become enlarged during crises. According to our studies,[23] after the age of 5 years some degree of jaundice is present in more than 50 per cent of cases and tends to increase with advancing age.

The absence of bile from the urine and the high proportion of indirect reacting bilirubin points to increased red blood cell destruction as the cause of the icterus. The serum bilirubin level is usually about 3 mg. per 100 ml. but often rises during a hemolytic crisis.

Green[50] reports a marked elevation of serum bilirubin during crises in some patients. There was a high proportion of direct reacting bilirubin together with bilirubinuria and marked evidence of hepatic dysfunction and extreme liver enlargement. This high serum bilirubin could not be attributed to increased blood destruction or obstruction of the common duct or to a complicating homologous serum hepatitis.

The increase in excretion of bilirubin predisposes to the formation of gallstones. Nevertheless, gallbladder disease is rare in SCA although gallstones are frequently present after the second decade. Common duct obstruction seldom occurs. It is, therefore, unlikely that biliary tract disease is the cause of the hepatic disorder.[50, 51]

Frequent blood transfusions may cause hepatic dysfunction by producing secondary hemochromatosis as a result of the deposition of the iron from transfused blood. In the cases surveyed by Green[50] iron deposition in the liver was not regularly present and no patient had clinical evidence of hemochromatosis.

Spleen. We have observed splenic enlargement in 60 per cent of patients below the age of 6 years, whereas between the ages of 6 and 14 years a palpable spleen was found in 50 per cent of the cases.[23] At necropsy the usual finding in adults is an exceptionally small spleen, sometimes weighing less than 10 grams.[41]

In contrast to this, the spleen of patients with the genetic variants of SCA is usually palpably enlarged, and crises are associated with further transient enlargement.

Henderson[52] reported on 312 Negro aviation cadets of whom 23 exhibited the sickling phenomenon. There was no evidence of increased intravascular sickling at an altitude of 10,000 feet. Sullivan[53] reported on a patient with sicklemia who experienced severe left upper quadrant pain at an altitude of between 10,000 and 16,000 feet. Other authors have described the clinical triad of massive splenic infarction, sicklemia, and high altitude flying.[54-58] It has been demonstrated by electrophoretic studies that some of the individuals showing this clinical triad actually have sickle cell-hemoglobin C disease.[58]

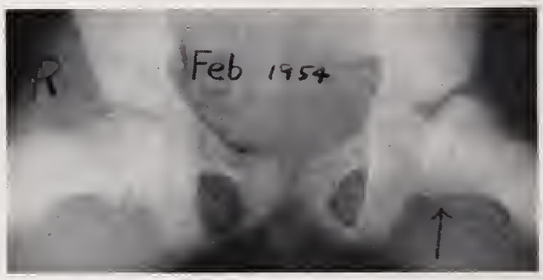

FIG. 3. Aseptic necrosis of the head of the left femur in a 14-year-old patient with SCA.

Bones. Multiple joint pains, often without evidence of inflammation, are frequently reported in crises.[41] Aching pains over the long bones are somewhat less frequent. Hydrarthroses are common. It is accordingly evident that rheumatic fever may be confused with SCA.

Moseley and Manley[59] state that the skeletal changes are due to intraosseous vascular thromboses and to hyperplasia of the erythroblastic elements of the marrow. Both of these may occur in the same patient, but thromboses and infarctions tend to be common in young adults, whereas changes due to hyperplastic marrow are usually seen in the younger age group. Aseptic necrosis in the head of the femur seen in these patients may simulate Legg-Perthes disease (figure 3).

Thrombosis results in cortical thickening and in narrowing of the medullary spaces and sometimes in areas of infarction. Erythroblastic hyperplasia widens the medullary spaces; the cortex is narrowed, and the trabecular pattern is irregular. The short and flat bones may show exaggeration of the trabecular markings, and the vertebrae may be demineralized and cupped on account of the pressure of the nucleus pulposus on the weakened vertebral bodies. The skull may have widening of the diploic space between the inner and the outer tables with thinning of the outer table. These changes are most marked in the parietal region, and the trabeculae in the diploë may be arranged in the form of medial striations ("hair on end") (figure 4).

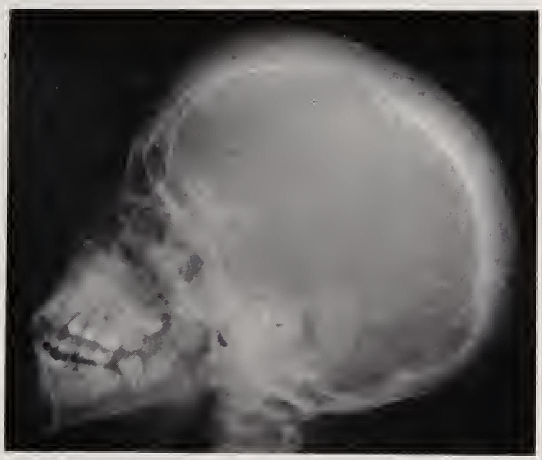

FIG. 4. "Hair on end" appearance and widening of the diploic space between the inner and outer tables of the skull of a patient with SCA.

The radiologic findings may be summarized as a slight diminution in density of all the bones with a coarsening of the trabeculations, especially of the vertebrae. The collapse of the vertebral bodies may produce kyphosis or scoliosis and cause a "fish mouth" or cupping appearance of the vertebrae. The "hair on end" appearance of the skull was discussed above. Saber shin and turricephaly have been reported.[59]

Neurologic manifestations. Intravascular sickling and vascular occlusion may occur in the central nervous system as in other parts of the body. The various neurologic manifestations are well recognized but are relatively uncommon.[40, 41] The commonest is cerebral vascular occlusion with symptoms varying from drowsiness to hemiplegia. The onset is sudden but may occasionally be gradual. Milder symptoms may be caused by vascular stasis and small thromboses in areas with good collateral circulation. If the thrombi involve larger vessels or areas of poor collateral circulation, major symptoms will develop.

Hughes, Diggs and Gillespie[60] reported the relative frequency of nervous system symptoms in 31 cases. Table 2, taken from their article, is presented as a summary of the CNS symptoms which may develop in SCA.

TABLE 2

Relative Frequency of Nervous System Symptoms in 31 Cases of SCA

Symptom	Number
Drowsiness, stupor or coma	16
Hemiplegia	14
Aphasia	9
Headache	8
Convulsions	8
Stiffness of the neck	8
Pain in the back and the neck	7
Abdominal pain	7
Irritability	6
Facial weakness	5
Stiffness of the legs	5
Stiffness of the back	4
Nystagmus	3
Pupillary changes	3
Vomiting	3
Transitory blindness	2
Ptosis	2
Generalized rigidity	2
Dysphagia	2
Paresthesia of the extremities	2
Diplopia	1
Left homonymous hemianopsia	1
Paralysis of third and fourth cranial nerves	1
Weakness of the left side of the tongue	1
Anesthesia and analgesia of the left side of body	1
Nasal regurgitation	1
Marked salivation	1
Delirium	1

Kidney. Hematuria is not unusual.[61-64] Able and Brown[65] presented a case of severe hematuria simulating renal neoplasm. Goodwin, Alston and Semans[66] reported 7 cases in which unexplained gross unilateral renal hematuria occurred in association with the sickling phenomenon. Of these patients 2 had the sickle cell trait, 1 SCA, and 1 sickle cell-hemoglobin C disease.

Smith and Conley[41] reported on a patient of the sickle cell-hemoglobin C group who had undergone left nephrectomy because of recurrent gross hematuria. This patient has continued to have a persistent mild albuminuria without hypertension. The urine often exhibits a low fixed specific gravity and albuminuria.[67, 68, 69]

COURSE

The onset of the disease may be insidious or it may be accompanied by crises and fever. Exacerbations may be mild or severe and are often associated with infections. These exacerbations usually occur several times per year, especially in winter and in the spring.[23] The hemoglobin level may fall rapidly in severe hemolytic crises. Wolff[70] reports a fall from 8 to 1.5 grams per 100 ml. in the course of a few hours. In such instances the crisis may be fatal unless transfusions are given.

Although the course is variable, the severity of the disease seems to be greater when the onset of clinical symptoms is at an early age. The new genetic variants tend to run a milder course.[41]

COMPLICATIONS

Because of the systemic nature of SCA there are many possible complications. Some of these are:

1. Involvement of the central nervous system may result in innumerable complications as was discussed above. Headache, which is common, is relieved by epistaxis[1] or by lumbar puncture and is thought to be due to increased vascular stasis of the cerebral vessels with resultant swelling of the brain.[1]

2. Dizziness, which is frequent, may be due to the anoxia from chronic anemia or from local brain involvement.[1]

3. Convulsions, which may be recurrent, have been mistaken for epilepsy.

4. Aphasia occurs, usually suddenly, and may disappear.

5. Hemiplegia may be present but will often regress.

6. Ptosis may occur.

7. Epistaxis may occur without any apparent reason.

8. A low-grade fever is frequent.

9. Generalized lymphadenopathy, particularly of the cervical region, has been noted.[23, 41, 42]

10. Abdominal pain may simulate appendicitis, cholecystitis, cholelithiasis, salpingitis, ileus, perineal abscess, or a ruptured viscus, and has caused patients to have unnecessary laparotomies.[1] Episodes are severe and recurrent. Their frequency and severity increase in hemolytic crises, and they are often accompanied by nonobstructive jaundice, fever, muscular spasm, nausea, vomiting, and leukocytosis. SCA should be ruled out prior to surgery in all Negroes with acute abdominal pain.

11. Pregnancy is a problem of considerable magnitude in SCA because of severe obstetrical complications often leading to fetal or maternal death.[1, 41, 71-74] Pregnancy has been rare in SCA because (1) the patient may die before the childbearing age, (2) the possibility of genital hypoplasia decreasing their fertility, and (3) the relative anoxia may cause the death of the fetus and abortion. In a series of 11 patients there were no maternal deaths.[75]

12. Priapism unassociated with sexual desire, painful and not relieved by sexual intercourse, is thought to be due to thrombosis and vascular occlusion of channels for the venous return from the penis. It has been reported from the age of 8 to 29 years.[1] The penis is usually cool, and on aspiration the blood is black. If present for more than 2 days' duration, the priapism will probably result in permanent impotence.

13. Atrophy of the external genitalia is postu-

lated as being due to the general anoxia and a deficiency of the pituitary.[1]

14. Enlargement of the spleen has been discussed.

15. Gallstones are usually composed of calcium bilirubinate.

16. Jaundice has been discussed.

17. Tuberculosis, although common in SCA (50 per cent of 1 series succumbing[1]), is not thought to be related to the SCA. The reduced resistance common in SCA probably predisposes to the development of tuberculosis.

18. Respiratory complications are very common in childhood. Prior to modern chemotherapy and antibiotic therapy pneumonia was the chief cause of death.

19. Aseptic necrosis of the hip, epistaxis, hemiplegia, and aphasia occur.

LABORATORY DATA

A variety of methods have been advocated for the demonstration of the sickling process. These methods are based on the assumption that anoxia is responsible for the formation of sickle cells in these patients.[13]

By means of various procedures, the erythrocyte has been observed to pass through progressive stages from the normal biconcave disc through stellate or spiculated forms to assume the crescentic, thin, elongated form that resembles a sickle.[76] Oxygen has been displaced in vitro by the use of various gases and bacteria to achieve anaerobic conditions. Hahn and Gillespie[13] found that when blood is suspended in citrated saline on a cover slip and exposed in a gas chamber to either carbon dioxide, nitrous oxide, or nitrogen, the crescent-shaped cells appeared. Hanno and Margolies[77] exposed 10 c.c. of oxalated blood to a stream of pure carbon dioxide for 10 to 15 minutes and then transferred the darkened blood to a cover slip for microscopic examination. (Carbon dioxide gas displaces a large amount of the air in either the gas chamber or flask, creating an oxygen-poor environment; also the carbonic acid formed by the reaction of gas with the blood decreases the affinity of the hemoglobin for oxygen.[78]) The gas-chamber method has been found to be unsatisfactory because it is too impractical for routine use, and special equipment and skill are necessary.[79, 80] A suspension of aerobic bacteria (*B. subtilis*), when mixed with blood and sealed with petrolatum on a cover slip, will utilize and reduce the available oxygen, producing sickling in susceptible erythrocytes.[81]

A good method for preservation of the cells for experimental studies or teaching purposes is to mix the blood with a saline citrated solution in a test tube to which paraffin oil is added to prevent exposure to the air. This is allowed to stand for 24 hours at room temperature, and 10 per cent formaldehyde in normal saline is added to fix the cells.[82]

The change in shape of the erythrocyte is said to be due to the state of its hemoglobin; i.e., the hemoglobin in the discoid-shaped erythrocyte is in the combined, oxyhemoglobin state, whereas the hemoglobin in the elliptical cell is in the uncombined or reduced state.[13, 83] Changes in the pH influence the dissociation of oxyhemoglobin.[84] Based on these hypotheses, various reducing substances have been employed to demonstrate the sickling process. Thomas and Stetson[85] used sulfhydryl compounds to produce sickling. They obtained sickling in 15 minutes to 1 hour by using BAL (0.1 molar solution), 1-cysteine hydrochloride (0.5 molar solution), and glutathione. However, sickling was observed in 5 minutes by the use of a saturated solution of hydrogen sulfide, and this was considered to be the most simple and rapid method. Oxygen reversed the sickling phenomenon noted with these sulfhydryl compounds. Other reducing substances have been advocated to demonstrate sickling but are not as desirable because of their unstable nature. These substances are sodium dithionate,[86] sodium hydrosulfite,[87] cevalin,[88] sodium bisulfite and ascorbic acid,[88] and sodium metabisulfite.[89]

Neuda and Rosen[90] state that sickling in vitro can be accelerated by adding a drop of a broth culture of a saline extraction of normal feces to the blood on a slide. These changes are thought to be due to a cell-destructive process (possibly caused by an enzyme), which causes the appearance of sickled cells.

One of the simplest and most practical methods available to demonstrate sickling is the moist preparation in which a drop of the susceptible blood is sealed under a cover slip and examined at intervals.[7, 91-94] This method has been further modified by the use of vital dyes and other chemicals (brilliant cresyl blue, Janus green, methylene blue, and sodium cyanide)[80, 95] and various diluents added to the blood (serum from another patient, 1.25 per cent citrate in ⅛ M sodium chloride and physiologic saline).[11, 12, 13, 96, 97]

The moist stasis method of Scriver and Waugh[98] has been noted to be superior[99] to other methods. Here a rubber band is allowed to constrict the proximal portion of the patient's finger for 5 minutes. The finger is punctured and a drop of the cyanotic blood is quickly sealed under a cover slip and can be immediately examined microscopically. It has been noted that the red cells sickle more readily when collected under these anoxemic conditions than when the blood is collected without stasis by other methods.[99]

The erythrocyte sedimentation rate (ESR) in sickle cell anemia was noted by Graham and McCarthy[100] to be faster than normal, but this was later disproved by others.[101, 102] Bunting,[101] after investigation of the sedimentation rate in SCA, noted that the sickle-shaped erythrocytes did not form rouleaux, and thus sedimentation was slower. Upon further study of the ESR, it was found that on exposure to carbon dioxide sickling became accelerated with a decrease in the sedimentation rate. Oxygenation caused rouleaux formation and an accelerated sedimentation rate. Winsor and Burch[103] found that this variation in the sedimentation rate was reversible and could be controlled by the addition of carbon dioxide or oxygen, and that if the difference in the ESR (called the diagnostic parameter) was greater than 20 mm. per hour it was diagnostic of SCA.[104, 105]

The work of von Körber[106] in 1866 and von Körber[107] in 1887 showed that fetal hemoglobin in the presence of an alkaline medium denatures at a slower rate than normal adult hemoglobin. Singer et al[16] established a method of destroying adult hemoglobin in 1 minute with an alkaline reagent. A fraction of the hemoglobin in sickle cells was found to be resistant to denaturation. The alkali denaturation test is an aid in differentiating SCA from acquired anemia due to other causes and sickle cell trait, but it is not specific as a single test because the abnormally denaturing pigments may also be found physiologically until the end of the second year of life and pathologically in certain other hematologic disorders such as leukemia. The resistant hemoglobin in these disorders is hypothesized to be either a continuation or a reactivation of the production of the fetal hemoglobin.[108]

Pauling et al[14] found that the hemoglobin of patients with SCA, when studied with the Tiselius apparatus, had a different electrophoretic mobility from the hemoglobin of the normal blood. They hypothesized that this difference in mobility is due to a difference in the number of acidic and basic groups in the 2 types of hemoglobins. They suggest that SCA is a molecular disease and that the change in the shape of the erythrocytes is due to a difference in the properties of the hemoglobin molecules. By use of the Tiselius apparatus other abnormal inherited hemoglobins have been found to exist in combination with sickle cell hemoglobin.[109, 110] The technic of electrophoretic analysis of hemoglobin has offered the most accurate and reliable laboratory method of demonstrating sickle cell disease and its genetic variants. More recently, paper electrophoresis has been more widely used for this technic. Its chief advantage is that it is less expensive and less time-consuming and can readily be adapted to routine laboratory use.[111]

Diagnosis and Differential Diagnosis

The diagnosis of SCA is based upon the clinical history and physical findings, but mainly upon the hematologic findings. The disease is marked by chronic anemia, fever, pain in the abdomen and extremities, malaise, asthenia and weakness, loss of weight, anorexia, easy fatigability, epistaxis, jaundice and headache. Some of these symptoms are probably due to the anoxemia caused by the sickled erythrocytes stagnating in, and obstructing the small capillaries, leading to ischemia and anoxia of the vital tissues.

Sickle cell anemia remains a diagnostic problem because it can mimic or simulate so many other clinical conditions (table 3). Winsor and Burch[105] have referred to this disease as the "great masquerader."

TABLE 3

List of Diseases and Symptoms Which Should Be Considered in the Differential Diagnosis of SCA

Diseases	Symptoms and Findings
Other anemias Rheumatic fever, carditis and other rheumatoid states Infectious hepatitis	Anorexia Arthralgia Abdominal pain Cardiac enlargement Cardiac murmur Fever Jaundice Joint swelling Liver enlargement Pallor Generalized pain
Meningitis Poliomyelitis	Convulsions Delirium or disorientation Paralyses Prostration Stiff neck, stiff back Malaise Vomiting Myalgia Coma Fever
Nephritis	Low, fixed specific gravity Albuminuria Hypertension Hematuria Casts in urine
Acute "surgical" abdomen	Abdominal pain and tenderness Nausea and vomiting Fever Leukocytosis
Osteomyelitis Leukemia	Joint swelling Bone tenderness Fever Leukocytosis Anemia Leg ulcers
Typhoid fever	Anemia, pallor Abdominal pain and enlargement Prostration Delirium, convulsions, aphasia Headache Fever Nausea and vomiting Splenomegaly Epistaxis Pulmonary rales
Malaria Typhoid fever	Joint pains Anemia, pallor Fever, headache Enlarged and tender liver and spleen Jaundice Painful extremities Hemiplegia Chest and abdominal pains Epistaxis Nausea and vomiting Meningismus
Pneumonia Pulmonary tuberculosis (miliary) Histoplasmosis	Rales Pulmonary infiltration Pulmonary calcification Fever Shortness of breath
Skeletal disorders	Joint tenderness and swelling Kyphosis, lordosis and scoliosis Cortical thickening of bones Turricephaly Paralyses and paresthesias Aseptic necrosis of bone Pathologic fractures
Syphilis	Anemia Leg ulcers Cortical thickening of bones Cardiac enlargement and murmurs Joint and bone swelling and tenderness Saber shins Intermittent hydrarthrosis

TREATMENT

Since the diagnosis of SCA is at times elusive, the treatment is even more perplexing. At present it is mainly symptomatic and supportive.

During periods of remissions, treatment is mainly hygienic and supportive. Hematinics (iron, liver, liver extracts[112-116]) and fresh spleen[117] have been used in various cases but with little or no value and actually may be contraindicated unless there is a complicating deficiency anemia which responds to these substances. Diggs[118] noted no significant hematologic or clinical change in 6 cases following the use of whole liver, liver extract orally and subcutaneously, desiccated hog stomach, bone marrow extract and iron. Anodynes for mild pain and antibiotic and chemotherapeutic agents to prevent and combat infections that frequently precipitate crises are recommended when indicated.

During periods of crises direct measures to treat the sudden and severe drop in the hemoglobin concentration and red blood cell count, vascular stasis, shock, pain, restlessness and anorexia are essential. Oxygen (100 per cent) by face mask has been used in an attempt to raise the oxygen tension in the arterial blood with disappearance of abdominal and joint pain within 20 to 30 minutes.[119, 120, 121] This clinical improvement following oxygen therapy has been theorized to be due to a breaking up of the stagnated masses of sickle-shaped cells by the increase in oxygen tension, with improvement of the circulation of the blood through the capillaries. Another effect of administering oxygen in high concentration is the production of a mild respiratory acidosis and decrease in pH of the blood. However, Reinhard et al[122] found that after several days of continuous oxygen therapy the bone marrow was depressed and the anemia was increased. Therefore, if oxygen is used, it should be confined to short periods of time.

Whole blood transfusion, the oldest and most widely used form of therapy, is indicated for marked anemia and shock, particularly when the fall in hemoglobin and red blood cell count has been sudden and precipitous. Transfused normal red blood cells and even sickle cell trait cells will have a normal survival time in the SCA patient except when an extracorpuscular hemolytic condition has been superimposed upon the disease.[123] Henderson[124] demonstrated that transfusions diminish the amount of in vivo sickling. However, transfusions with whole blood are not to be used indiscriminately because of the risk of transfusion reactions and the depressant effect that multiple transfusions have on hematopoiesis. Whole blood or packed red blood cells remain the most reliable means of correcting the anemia and improving the general clinical condition of the patient.

Based on the theory that capillary blockage occurs in sickle cell crises, anticoagulants have been used during these periods. Heparin and dicumarol[51, 83] have been employed in order to prevent or decrease the thrombotic episodes but are of equivocal value. Ethyl biscoumacetate and phenindione[125] was used in a patient during crisis on the basis that the clinical effects of crisis are those of thrombo-embolism. It was found that the proportion of cells that sickled in vivo (during the period of therapy) was reduced from 80 to 90 per cent to less than 1 per cent and also that the time required for sickling to occur was increased. However, additional investigation of anticoagulants is needed before we can adequately evaluate this form of treatment. During the period of therapy with anticoagulants the prothrombin time of the patient's blood should be closely followed to prevent hemorrhagic episodes.

Cobalt has been demonstrated to produce a polycythemia in different laboratory animals and in human beings with SCA,[126, 127] thalassemia, nutritional and physiologic anemias and in anemias secondary to chronic suppurative infections.[128] Its mode of action, though not clear, is probably stimulation of erythropoiesis as is evidenced by a prompt reticulocytosis with subsequent rise in the red blood cell count and hemoglobin concentration. After a period of time, however, the hemoglobin concentration and erythrocytes slowly return to the original level. In view of the occurrence of such toxic manifestations as gastrointestinal irritation and, in some instances, thyroid hyperplasia and hypofunction,[127, 129] indiscriminate and continuous use of this drug should be avoided.

Plasma,[119, 130, 131] water therapy,[120] dextrose, dextran[132] and other plasma extenders[133] have been employed in the treatment of SCA crisis to improve the circulating blood volume and tissue hydration and to mobilize the stagnant red blood cells. Clinical improvement has been noted in 24 hours in 6 patients who received 6 per cent dextran in 5 per cent fructose.[132]

Twelve cases of SCA were treated with sodium citrate orally and 1/6 M sodium lactate intravenously and an increase in red blood cell count was noted in the first 24 hours.[134] The serum bilirubin, reticulocytes and urobilinogen in the stool were diminished during treatment.

During crises SCA patients may demonstrate evidence of heart failure. If these patients are severely anemic, transfusions improve their general condition. However, care must be exercised to prevent overloading the circulation.

When other methods fail, ACTH and cortisone may be of value for the relief of pain, shock, and anorexia during a crisis.[40, 135] Priscoline[136] may be helpful in relieving the pain associated with crisis, but our experience with this drug has been disappointing.

Surgery has little to offer in the therapy of SCA. The effect of splenectomy[137] is much less dramatic than it is with Mediterranean anemia, but it may be considered in selected cases in which an extracorpuscular hemolytic condition is superimposed upon the SCA. These patients have frequent crises and very large spleens and require multiple and frequent transfusions. Such patients are reported to have long periods of remission following splenectomy. In evaluating a patient with SCA for this operation it should be kept in mind that eventually the spleen becomes atrophic and may eventually disappear (autosplenism). Although cholelithiasis is not rare in individuals with SCA, the condition is usually quiescent, and cholecystectomy is rarely indicated.

It has been our experience that children afflicted with this disease often have large and infected tonsils. In view of the frequent association of tonsillitis and respiratory tract infections with the crisis, we believe that these young patients should not be denied tonsillectomy if the indication exists. In our experience these patients can undergo a tonsillectomy satisfactorily, providing preoperative transfusions and other safeguards are used as indicated.

Because of poor nutrition and growth failure, SCA patients should have a nutritive diet and good general hygiene. Finally, since SCA is a chronic, incurable disease, patients suffering from this disease may develop feelings of inferiority and self-pity and occasionally may experience periods of mental and emotional depression. Likewise, because the disease is genetically transmitted the parents may feel a sense of guilt. It, therefore, follows that SCA patients and their parents should be given the benefit of comprehensive care and management which should include attention to the social, emotional and psychologic factors associated with this disease.[138]

PROGNOSIS

SCA is chronic, incurable and somewhat debilitating. The onset of clinical symptoms at an early age seems to result in a more severe course. Death is usually due to crisis, infection, cardiac failure and vascular accidents.

Previously the general debility associated with SCA has predisposed these patients to repeated intercurrent infections. However, with the modern use of antibiotics and chemotherapy for the control of infection, the period of life expectancy has been prolonged.

SUMMARY

A review of SCA is presented. The genetics and the abnormalities of the hemoglobin are discussed. Clinical manifestations are so varied that SCA may mimic a variety of entities. SCA should, therefore, be considered in the differential diagnosis of many diseases in the Negro. Electrophoresis is the only definitive diagnostic laboratory procedure. Treatment is mainly supportive and symptomatic. The disease is chronic, incurable and debilitating and predisposes to respiratory infections.

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(Continued on page 573)

THE INDICATIONS FOR THE USE OF SUPERVOLTAGE IRRADIATION*

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THE term supervoltage is best understood historically. In the first 20 years of X-ray therapy the peak voltage available was 130 kv., in the second 20 years the 180 to 250 kv. range came into general use, and in the last 20 years reliable apparatus in the 1 and 2 million-volt class have been commercially available though not widely used. The low-voltage period we now call superficial X-ray therapy, although our admiration and gratitude are due the pioneers who with inadequate and temperamental equipment laid so well the empirical foundations of radiotherapy. The second period of deep X-ray therapy added a firm scientific basis of radiation physics and radiobiology to the empirical art, and its triumphs gave a valuable impetus to the study of, and fight against, cancer everywhere. The third period of supervoltage therapy has also been a period of surgical advance and increasing surgical competition, so that its potentialities have not so far been generally recognized.

The indications for the clinical use of supervoltage X-rays can be largely predicted from their physical characters when compared with those of deep X-rays: higher depth dose, milder skin reaction, less shielding of tumors by bone, less risk of radionecrosis of bone, and better defined X-ray beams. These advantages are not in doubt, but the clinical superiority of supervoltage irradiation over deep X-ray therapy is not so easily proved, because cures of many inoperable cancers such as those of the lung, esophagus or rectum are so few, and an objective comparison between degrees of palliation is difficult (table 1).

TABLE 1

Advantages of Supervoltage Compared with Deep Therapy

Definition of supervoltage: effective wave-length, 0.01–0.03 A.U. 1000–3000 Kv. X-rays, telecobalt and teleradium. (1 A.U. = 10^{-8} cm.)

Definition of deep therapy: effective wave-length, 0.1–0.3 A.U. 180–250 Kv. X-rays.

I. Scientific—based on physical properties:
  - Higher depth dose—more penetrating radiation
  - Milder skin reaction—predominantly forward scatter
  - Less shielding of tumor by bone—less bone absorption
  - Less risk of bone damage—smaller energy absorption in bone
  - Better defined beams—less side-scatter and back-scatter.

II. Empirical—based on clinical observations:
  - More 5-year survivors, although not statistically significant
  - Better tumor control—degree of palliation better, duration of palliation longer, and frequency of palliation higher
  - Less patient discomfort—milder skin reactions and less "radiation sickness"
  - Less effect on bone growth in children
  - Less risk of pathologic fracture and bone necrosis in adults
  - Sometimes success after failure of previous deep X-ray therapy

If the average thickness of the skin is taken as 2 mm., the zone of maximum dose with deep X-rays is in the skin, but with increasing voltage[1] it is shifted inward to lie deep to the skin; hence the milder skin reactions with supervoltage therapy. The difference becomes clearer still in the megavoltage range, when the maximum dose is at a depth of several centimeters and many times the skin dose.

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The higher tumor dose made possible with supervoltage irradiation may be illustrated by the simple arrangement of 2 opposed fields cross-firing the body (figure 1). If the diameter of the part is less than 12 cm., for example the neck, and if the higher exit dose of supervoltage radiation is taken into account, the central tumor dose is equal to the skin dose for both supervoltage and deep X-rays; but if the diameter is greater than 12 cm., supervoltage is increasingly advantageous. This advantage is even greater if there is bone in the path of the X-ray beam from the skin to the tumor, because bone is relatively opaque to deep X-rays, whereas for supervoltage radiation it is almost as translucent as soft tissue. With multiple cross-firing beams, the superior depth dose of supervoltage goes on increasing and reaches its acme with a rotation therapy technic.

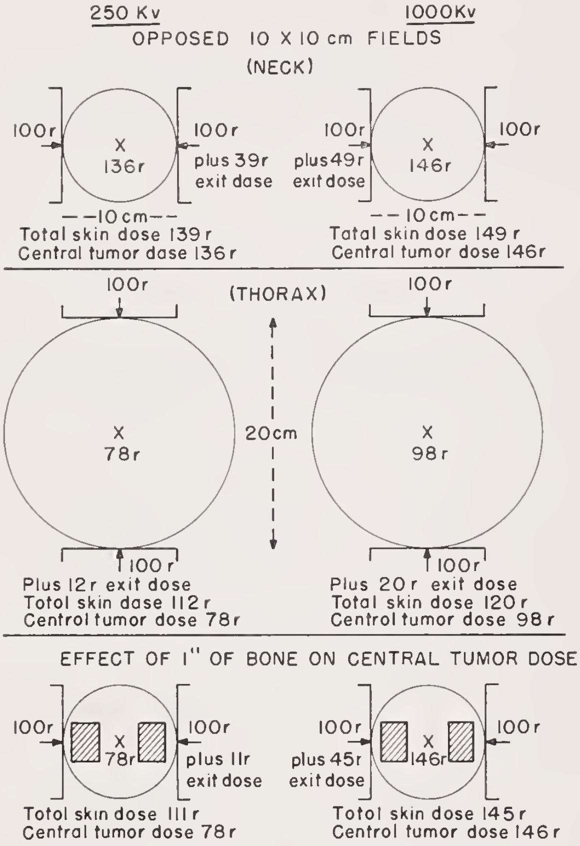
250 Kv
1000Kv
OPPOSED 10 X 10 cm FIELDS
(NECK)
100r
X
136r
100r
plus 39r
exit dose
--10 cm--
Total skin dose 139 r
Central tumor dose 136 r
100r
plus 49r
exit dose
X
146r
100r
-- 10 cm--
Total skin dose 149 r
Central tumor dose 146r
100r
(THORAX)
100r
X
78r
20cm
X
98r
100 r
Plus 12 r exit dose
Total skin dose 112 r
Central tumor dose 78r
100r
Plus 20 r exit dose
Total skin dose 120 r
Central tumor dose 98 r
EFFECT OF 1" OF BONE ON CENTRAL TUMOR DOSE
100r
X
78r
100r
plus 11r
exit dose
Total skin dose 111 r
Central tumor dose 78r
100r
plus 45r
exit dose
X
146r
100r
Total skin dose 145 r
Central tumor dose 146 r

FIG. 1. Two opposed fields cross-firing the body.

Other advantages of supervoltage may be the higher ratio of tumor dose to integral dose, homogeneity of dose distribution, and specific ionization, but the 2 simple advantages of higher tumor dose and less bone absorption are sufficient to give the main indications for supervoltage therapy (table 2). First, there are the general indications of oversize patients and skin changes from previous irradiation. Then there is the question of bone damage, of particular

TABLE 2

Indications for Supervoltage Therapy

I. General:
  Obese patients with deep-seated tumor—adequate tumor dose difficult or impossible with deep X-rays
  Previous deep therapy—skin tolerance to more deep X-rays doubtful
  Cancer in children—less damage to growing bone
  Primary sarcoma of bone—better preservation of normal bone repair
II. For better tumor control·
  Inoperable carcinoma of breast—25 per cent 5-year survival
  Inoperable carcinoma of rectum—9 per cent 5-year survival and 60 per cent relieved of symptoms
  Carcinoma of maxillary antrum—30 per cent 5-year survival
  Carcinoma of urinary bladder—15 per cent 5-year survival
  Carcinoma of cervical esophagus—18 per cent 5-year survival
  Carcinoma of thoracic esophagus—70 per cent relieved of dysphagia
  Metastatic carcinoma of liver—65 per cent relieved of symptoms
III. For cancer shielded by overlying bone:
  Nasopharynx, tonsil, base of tongue
  Bronchus, esophagus
  Pulmonary metastases
  Extensive pelvic cancer
IV. Special indications:
  Intrinsic carcinoma of larynx—less risk of late radionecrosis of cartilage
  Tumors in mediastinum—less risk of hilar fibrosis
  Pituitary tumors—less skin reaction and simpler technic

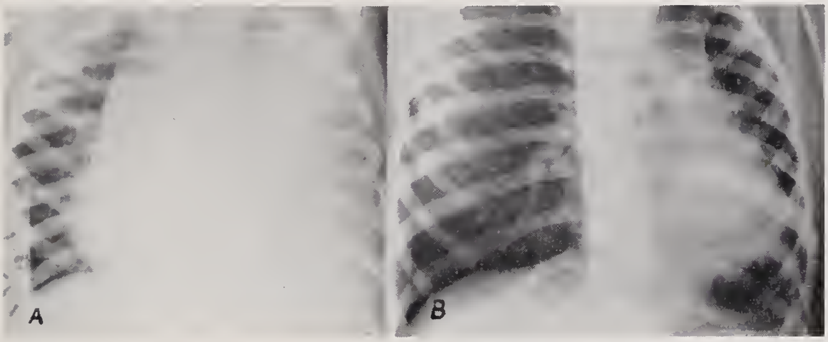

FIG. 2. (A) Ewing's tumor arising in ninth left rib; the left chest was filled with tumor, displacing the mediastinum to the right. (B) One year after treatment with nitrogen mustard and supervoltage X-rays; lack of growth of left chest and lack of expansion of left lung, with mediastinum displaced to left.

importance in the growing bones of children, but of scarcely less importance in irradiating bone tumors in adults, since the control of such tumors depends in part on the preservation of the normal bone so that repair can proceed in step with tumor destruction. In children, temporary inhibition of bone growth is caused by 1,000 r or even less, and since tumor doses are usually 2,000 r or more, bone damage cannot be avoided, but the degree of damage can be minimized by using supervoltage irradiation.

In the spring of 1949 a 5-year old boy had an attack of pneumonia, and after recurrent attacks through the summer an X-ray film of the chest taken in September, 1949 (figure 2-A) showed the mediastinum displaced to the right by a solid tumor filling the left chest; it was a Ewing's tumor of the ninth rib. He was admitted on November 30 in a moribund condition but made a remarkable recovery after combined treatment with nitrogen mustard and 1,000 kv. X-rays and remains well 5 years later; the X-ray film taken a year after supervoltage irradiation shows the lack of growth in the left chest (figure 2-B).

Statistical proof of better 5-year survival rates by use of supervoltage irradiation is lacking, but the validity of the examples listed—inoperable carcinoma of the breast, rectum,[2] maxillary antrum,[3] cervical esophagus[4] and bladder—is supported by numerous illustrative cases.

The selection of the best method of radiotherapy for each patient involves so many considerations that only one or two examples can be presented here. Carcinomas of the nasopharynx and oropharynx are not only shielded by bone but often also are invading bone; radionecrosis of bone is a less frequent complication after supervoltage or teleradium irradiation than when deep X-rays are used. In cancers situated in the mediastinum there is less risk of hilar fibrosis when supervoltage is used, because the beam is well-defined with very little side-scatter.

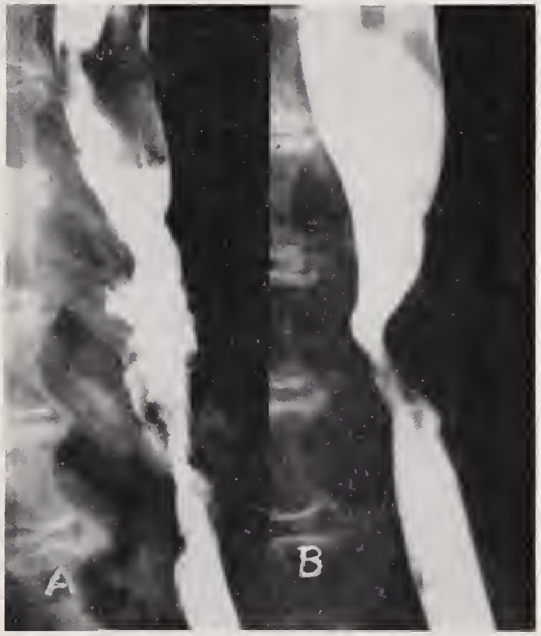

FIG. 3. (A) Perforated carcinoma of the esophagus which healed (B) after supervoltage irradiation.

The main criteria for comparing the palliative value of supervoltage therapy and deep X-rays are the consistency of palliation, its duration, and the amount of discomfort incidental to the

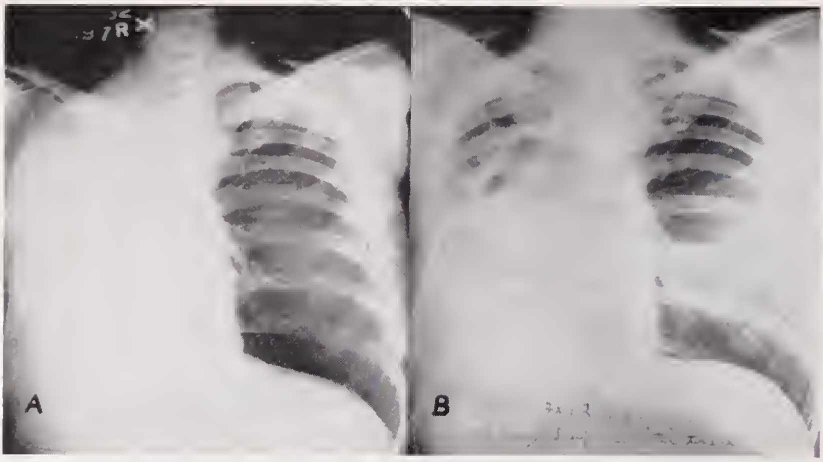

FIG. 4. (A) Epidermoid carcinoma of right main bronchus before treatment. (B) Some aeration of right upper lobe; tumor dose 3,500 r.

irradiation. The healing of a perforated esophageal carcinoma after a 6,000 r tumor dose is illustrated in figure 3. A carcinoma of the right main bronchus (figure 4-A) began to regress after a 3,500 r tumor dose to the point where there was some aeration of the right upper lobe (figure 4-B); the next day the patient coughed up a piece of tumor measuring 3 by 2 cm. (figure 5) with immediate aeration of the whole lung (figure 6). Seven months later a radical pneumonectomy was successfully performed. There was still a large primary epidermoid carcinoma, but no metastases were found in the lymph nodes, and the patient remains well for over 2 years. For effective palliation many such cases have to be treated to just as high a tumor dose as under more favorable circumstances would be adequate for "cure." But there are other examples, the most striking being liver metastases, in which consistent though rather short-lived palliation can be obtained with a tumor dose level which would be ineffective for the primary tumor.

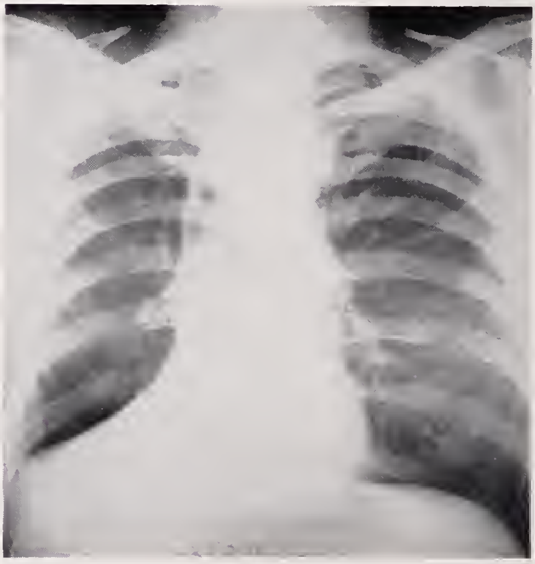

FIG. 6. Right lung fully aerated; tumor dose was taken to 6,000 r and radical pneumonectomy performed 7 months later.

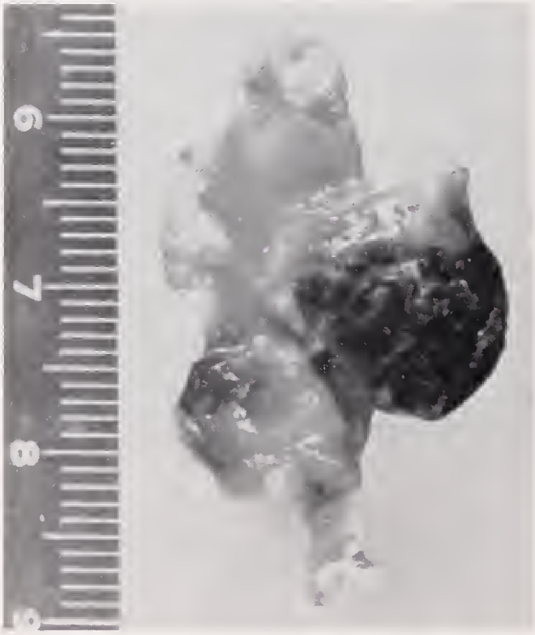

FIG. 5. Piece of tumor coughed up by patient.

If supervoltage has all the advantages which I have outlined, it is pertinent to ask why it is not more widely available and generally used.

(*Continued on page 573*)

CANCER OF THE CERVIX AND THE GENERAL PHYSICIAN*

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STATISTICS have shown that the general physician sees approximately 85 per cent of the patients visiting doctors in this country. We general physicians, therefore, have the privileged opportunity to examine these patients and to make early diagnoses of many illnesses, incipient or otherwise, long before our patients are seen by, or referred to the specialist for treatment. Cancer of the cervix is no exception in this realm of privileged opportunity.

Carcinoma of the genitals is the commonest type of cancer in women, and carcinoma of the cervix is by far the commonest genital cancer. Cancer of the genitals comprises only 2 per cent of the cancers in men, whereas it accounts for about 27 per cent of all cancers in women.

About one third of all cancers which occur in women are located in the uterus, and of these about 80 per cent occur in the cervix of the uterus. Until just a few years ago it was taught that the earliest signs of carcinoma of the uterus were bleeding between the menstrual periods, or after menopause, and a watery, serous vaginal discharge. It is now known, however, that by the time these signs appear the cancer most likely has been present for a few years. Our important job is to detect cancer of the cervix before abnormal symptoms cause the patient to go to her physician.

By present established diagnostic methods cancer of the cervix can be detected early enough so that when treated 86 to 90 per cent will survive 5 years or more. The difference between this excellent potential and the present lagging cure rate depends upon one factor—time. A diagnosis delayed even a few weeks, relatively unimportant in other insidious diseases, can be fatal in cancer of the cervix.

The general practicing physician is in the front line of attack on the problem of cancer of the cervix and its early detection. To follow through with a rigid cancer control program we must realize that (1) cancer is curable if recognized at an early stage; (2) the vaginal examination is part of the general examination; and (3) every diagnosis of a cervical lesion should be verified by the expert help of trained pathologists before any therapy is instituted.

We must always remember that 7.4 per cent of cervical cancer is found in women during the first 3 decades of life. Thorough examination of the genital tract should always be included in the general examination of all females. The physician must note these important points, and although common knowledge and didactic to all of us, it will do no harm to jog our memories: Is the cervix (1) soft or firm, (2) smooth or irregular, (3) nodular or granular, and (4) freely movable or fixed in its mobility to adjacent tissues?

The general physical examination is incomplete without a vaginal examination, and likewise the vaginal examination is incomplete without complete and full visualization of the cervix.

The symptoms which may lead us to the diagnosis of cancer of the cervix may range from a multitude of disturbances of the patient with innumerable complaints to the physician, or no symptoms or complaints whatsoever. The diversity of symptoms or complaints may be a simple backache, a vaginal discharge with or without foul odor, metrorrhagia, painful intercourse, bleeding between periods, frequency or urgency on voiding, and bleeding during or after coitus. There are probably many more symptoms, but, unfortunately, many of the females coming into your office and mine will be symptom-free and complaint-free as regards the female generative tract.

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We must look for areas of erosion, warty excrescences, ulceration, polyps, cysts, and leukoplakic spots. We should apply the Schiller test, in which leukoplakic spots, erosion, and carcinoma remain unstained. We should take vaginal and cervical smears and avail ourselves of expert interpretation by recognized and qualified cytologists.

Symptoms and Signs

The large proportion of all uterine cancers occurs in the portio, or that portion of the cervix which protrudes into the vagina and is covered externally by stratified squamous epithelium. The area chiefly involved in carcinoma is the external os, the junction between the squamous epithelium and the intracervical columnar epithelium.

The fungiform or ulcerative lesions of clinically recognizable cancer with their associated induration and contact bleeding should be readily detected and confirmed by biopsy.

The earliest lesion of the cervix, known as carcinoma in situ, is far more difficult to discover. There is noted a deviation from normal pink color with no break in the epithelium. The cervix is red and congested with a bluish tinge. There may or may not be a small area of erosion. It may be detected with vaginal smears, and almost always with multiple wedge biopsies. If carcinoma in situ is detected and treated the cure rate is almost 100 per cent. It is impossible with the naked eye to recognize pre-invasive carcinoma of the cervix. It is for this type in particular that the vaginal smear, the Schiller test, and the culdoscope were intended.

A discussion of the symptoms and physical findings of cancer of the cervix would hardly be worthwhile or complete without the all-important differential diagnosis of lesions of the cervix that may occur alone or associated with carcinoma.

Erosion of the cervix. The most common of all cervical lesions may be acquired as a result of pregnancy, infections, and trauma, and some few are congenital. When an infection or trauma of the cervix produces an edematous and everted mucosa, the columnar epithelium is forced out of the cervical canal and overlies the vaginal portion of the cervix; here it replaces the squamous epithelium, and the familiar sloughing results. The vaginal section of the cervix is covered with squamous epithelium and normally has an acid pH of 4 to 4.5; the remainder of the cervix is lined with columnar epithelium and has an alkaline pH of 7.7.5. If the vaginal reaction becomes alkaline, the squamous epithelium may be destroyed and the columnar epithelium grow out of the portio, thereby producing erosion. Erosion is a hyperplasia. It may appear as a soft, velvet-like ring of tissue or as a large, eroded cauliflower, with varying widths and at times covering the entire face of the cervix.

Common nabothian cysts. These may grow to a centimeter or more in diameter. They result from the displacement of the columnar epithelium by the squamous with the subsequent burying of many mucous glands. These in turn fill up and are the nabothian cysts.

Endometrial polyp. This is usually seen at the external os and is composed of endometrial tissue, as a rule of hyperplastic type covered with a patch of squamous epithelium, almost like a true metaplasia. In rare cases it may change into a localized squamous carcinoma. These polyps have an increased blood supply during pregnancy and are subject to hemorrhage. Vaginal spotting usually follows intercourse.

Stenosis of the cervical canal. This is not uncommon at the menopause due to, and associated with, atrophic changes of the reproductive system. It may also be the result of surgical procedures, such as partial amputation, trachelorrhaphy, electric cauterization and conization, or too vigorous endocervical curettage. It is not uncommon following radium therapy.

Venereal warts (*condylomata acuminata*). These are usually multiple and occur over the vaginal wall and fourchet, with an abundant warty growth. They may be sessile or pedunculated in all sizes.

Tuberculous ulcerations. These are usually associated with tuberculous lesions elsewhere in the body, but there may be some few apparently primary infections. The signs and symptoms when localized to the cervix are discharge and spotting. Unlike cancer, the ulcer is more likely to be soft. It may appear as a funnel-shaped ulcer with slightly thickened edges and a necrotic base. Secondary lesions may appear as superficial macerated ulcers and are usually multiple.

Granuloma inguinale (*venereum*). This is a granulating disease of the skin, mucosa or subcutaneous tissue due to infestation of local monocytes by the Donovan bodies. It is almost entirely limited to the Negro race. Most of the lesions in women are on or about the vulvar or inguinal regions, although the cervix may be the site of an associated lesion or even the primary lesion. The lesion is slightly elevated from the surface and has a red, velvety appearance, well demarcated from the surrounding mucosa, but it may cover the entire face of the cervix. It is usually soft to the touch and bleeds very easily on irritation.

Leukoplakia of the cervix. This appears as one or more poorly demarcated white patches of squamous, cornified epithelium near the external os. It occurs usually in women near the menopause, and although it may be localized to the cervix, generally it is associated with similar lesions over the vagina and vulva. It is a questionable precancerous lesion.

Cancer of the cervix. This is of 2 main types. In regard to invasive carcinoma of the cervix and pre-invasive carcinoma of the cervix, the differentiation is usually accomplished by the pathologist. The recognition of the different cell types is important in view of the fact that the area of cancer is frequently very small and very difficult to find even when multiple biopsies are taken from 4 or 5 portions of the cervix. Therefore, if we feel that the case in question is probably of the pre-invasive cancer type we will not accept a negative biopsy as an indication that the patient has no cancer.

Cancer of the cervix is usually squamous-cell carcinoma, but rarely it may be adenocarcinoma. Squamous-cell cancer probably develops from pre-invasive intra-epithelial cancer cells near the junction of the high columnar and squamous-cell mucosa at the external os. Great effort is being expended upon finding methods of identifying the development during the relatively silent period of the pre-invasive lesion. The most promising is the proper use of the Papanicolaou smear technic. All cases positive to this test require further investigation in the performance of complete biopsy studies. These include careful and thorough curettage of the endometrium, curettage of the endocervix, and multiple biopsies at the columnar squamous junction of the cervix. The 3 specimens should be sent to the pathology department in separate containers.

The correct diagnosis of cervical lesions usually is quite readily made, although in some instances difficulties and uncertainty may be encountered. In these problem lesions we must call upon all of the scientific procedures and perform all possible reliable tests to aid us. In this way only can a complete diagnosis be made not only as to the most important disorder but also the coincident ones which are not infrequent complications.

(Continued on page 573)

CONTRIBUTIONS OF ST. ELIZABETHS HOSPITAL TO A CENTURY OF MEDICOLEGAL PROGRESS*

CAL.

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CRUCIAL COURT DECISIONS CONCERNING PATIENTS OF ST. ELIZABETHS HOSPITAL WHICH HAVE SET IMPORTANT MEDICOLEGAL PRECEDENTS

Even the casual student of medicolegal lore is impressed with the large number of important and precedent-making decisions which have involved patients of St. Elizabeths Hospital. In such oft-cited cases as "White v. Treibly," "Barry v. Hall," and "Overholser v. DeMarcos," we must remember that it was our late Dr. White, our Dr. Roscoe Hall (then Acting Superintendent), and Dr. Winfred Overholser whose names were making medicolegal history.

Some of the cases involved problems which were unique for St. Elizabeths Hospital in its role (until 1946) as the lawfully designated hospital to treat members of the armed forces. Revised Statutes 4843 reads as follows: "The Superintendent, upon the order of the Secretary of War, of the Secretary of the Navy, and the Secretary of the Treasury, shall receive, and keep in custody until they are cured, or removed by the same authority which ordered their reception, insane persons of the following descriptions." Then follows a listing of categories.

The most notable occasion in which the legality of this statute was challenged occurred in 1926 when Lt. Cdr. Charles E. Treibly, (MC) USN, retired, filed a writ of habeas corpus in the local District Court. Commander Treibly, an unforgettable figure to all who ever saw him shuffle his way across the campus or the Red Cross dance floor, was originally admitted to the hospital in 1923, with the established diagnosis of general paresis. He was, in my memory, one of the few surviving patients who had received the once famous but rigorous Swift-Ellis treatment. Despite several courses of therapeutic malaria and intensive chemotherapy, Commander Treibly failed to show significant improvement although his desire to leave the Hospital remained unabated. As the result of filing a writ of habeas corpus the patient was ordered discharged on July 7, 1926 by Judge A. A. Hoehling, Jr. on the grounds that he was no longer subject to military authority and could not be retained without due process of law. The case was appealed by Dr. White, and in May, 1927, in "White v. Treibly"[33] the U.S. Court of Appeals decided that a retired officer was still in the military service of the Government and hence was still subject to the jurisdiction of the Secretary of the Navy within the province of R.S. 4843. The court ordered the judgment reversed.

In the meantime, however, Commander Treibly had shuffled off to Pennsylvania where he wrote Dr. White a letter with the eyebrow-lifting statement that he had improved 1,000 per cent. He moved on to New York, where he exhibited such gross incompetence of judgment that he was rehospitalized and finally returned to St. Elizabeths in June, 1927. This experience did not discourage Treibly any more than it enlightened the lawyers who represented him. In two instances the petition was dismissed and the patient remanded. In 1944, after a surprisingly long period of legal calm, he once again took out a writ of habeas corpus. At this hearing no medical testimony was given, and the court, apparently disregarding the previous ruling of the Court of Appeals, ordered his release on the grounds that he had not been legally committed and therefore could not be detained against his will. Dr. Overholser asked the U.S. Attorney's office to file an appeal. The decision in "Overholser v. Treibly" in essence was to order the lower court to withdraw its order of discharge and to conform to the procedures outlined in the opinion. The court made the further legal point that, "In a habeas corpus proceeding the court sits as a Court of Law to determine 'in a summary way' whether the petitioner is unlawfully restrained of his liberty. In a lunacy proceeding, on the other hand, the court sits as a Court of Equity to determine whether a person is sane or insane, and in so doing it is or should be assisted by the administrative officers and experts appropriate to such a court and such a determination."[34] In this statement the court was referring to the use of the Commission on Mental Health to conduct impartial examination and report to the court on its findings.

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* This article is being published in two parts, of which this is Part II.

Unfortunately, the decision of the Court of Appeals came too late to be of material assistance to Commander Treibly, who had left the area to try his luck elsewhere. When last heard from, he was a patient in a nursing home in the state of Florida, where he had been adjudged incompetent by a local court. *Sic transit gloria treponemae!*

* * * * *

One of the most vexing problems in psychiatry is the proper treatment of the patient who has been acquitted of a capital offense by reason of insanity but who has improved or recovered his mental health. Perhaps the most frequently quoted case in this regard is "Barry v. White,"[35] decided by the Court of Appeals in 1933. Paul duV. Barry was the very unstable son of a prominent laundry proprietor who in 1923 was acquitted of the fatal stabbing of a streetcar conductor when the jury found him of unsound mind and sent him to St. Elizabeths Hospital. Here the official diagnosis was "without psychosis, psychopathic personality with emotional instability," and he was assigned to the Howard Hall Service. He filed three writs of habeas corpus in rapid succession, all of which were denied. Barry appealed the last ruling, and it was in response to this appeal that the court handed down its famous decision, the gist of which reads as follows:

"It seems clear that the natural assumption of fact follows that such condition of insanity has continued to the present time. The effect of such presumption is to cast upon the prisoner here the burden of proving that since the commission of the homicide he has become sane to the degree that it is reasonably certain that his enlargement will now be without menace to the public peace or safety. Where insanity has gone so far as actually to take human life, no sensible person will be satisfied with evidence of recovery which does not attain to the degree of reasonable certainty."[35]

It will be noted that the burden of proving his recovery in such cases rests squarely on the shoulders of the petitioner.

An interesting postscript to the Barry Case: Following the Court of Appeals' decision in 1933, the Hospital, after 10 years of denying his requests for transfer out of Howard Hall, finally agreed to such a transfer in August, 1933. He made an excellent adjustment for almost 9 months. When, on May 1, 1934, he suddenly eloped the whole city was alarmed. He was finally picked up by the police in St. Louis, Missouri, but District officials claimed they had neither the funds nor the authority to effect his return to St. Elizabeths. The last note in his record indicates that he was Arizona-bound. Beyond that the record is silent.

* * * * *

The case of "Barry v. Hall"[36] brought to the fore many important legal points, especially the question of "due process." Thomas Barry was a 55-year-old merchant seaman suffering from "paranoid psychosis associated with organic changes of the nervous system, type undetermined." He was transferred to St. Elizabeths in September, 1935 by authority of the Secretary of the Treasury. Prodded by a litigious ward-mate who was equally paranoid but legally expert, he filed 3 writs of habeas corpus within 9 months. On the last hearing the case was referred to the Court of Appeals, which ordered that Barry be returned to the Hospital pending the decision and the issuance of orders. On June 3, 1938 the court decided that his confinement at St. Elizabeths was illegal and ordered that he be discharged from the Hospital unless proper lunacy proceedings were instituted within 5 days.

Apparently these proceedings were instituted within the prescribed time and he became one of the first such cases to be examined at the Hospital by the then newly formed Commission on Mental Health on August 1, 1938. A report was duly made and the District Court on August 16, 1938 issued a formal order of adjudication and commitment.

The opinion of the court was written by Associate Justice Stephens. The portion of the opinion most frequently quoted (especially by lawyers) is that portion which rules that Barry's confinement in St. Elizabeths Hospital on the basis of a statute only was illegal.

"Insanity is not a crime and therefore the constitutional guaranty of jury trial is not applicable, nevertheless confinement in a mental hospital is as full and effective a deprivation of personal liberty as is confinement in jail. The Fifth Amendment is applicable in the District of Columbia . . . ; and it guarantees that no person shall be deprived of liberty without due process of law. Due process of law does not necessarily mean a judicial proceeding—the proceeding may be adapted to the nature of the case—but it does necessitate an opportunity for a hearing and a defense."[36]

The court also ruled that his continued confinement after his first unsuccessful court appearance was also illegal in that, "The court order discharging the writ of habeas corpus was not the equivalent of the lunacy adjudication contemplated under the statutes of the District of Columbia . . . and it does not, therefore, warrant further confinement of the appellant beyond such brief period as is necessary for the institution of proper lunacy proceedings."[36]

* * * * *

Perhaps one of the most fascinating and certainly one of the most persistent patients who ever made medicolegal history was Joseph R. DeMarcos. DeMarcos, who described himself as part Hindu, part French, part Jewish and part Moor, was in reality a highly intelligent Negro from Tennessee who was admitted to St. Elizabeths Hospital in 1939. While living in Canada, DeMarcos, who was already 71 at the time of his admission, was tried for murder and convicted of manslaughter. He was sentenced to life imprisonment, and while serving this sentence was found to be of unsound mind. He was sent to a mental hospital in Canada and transferred to St. Elizabeths Hospital by authority of the "reciprocal trade agreement" we enjoy with that country.

While in Howard Hall, DeMarcos, who had developed a neat talent for taking out writs of habeas corpus, was diagnosed as one of the rare cases of true paranoia. From 1940 to 1944 the courts were so impressed by his dangerous potentialities that all his many attempts to obtain his release were unsuccessful. In 1944, however, he appeared on his fifth attempt before the court of one of the justices (now deceased) who chose to disregard legal precedent. A newspaper account[37] under the headline, "Dangerous Paranoiac Freed" stated, "Justice Goldsborough took the case out of the hands of a jury and summarily ordered him discharged. . . . The apprehension of the District Attorney's office at having DeMarcos at large was further evidenced by the unprecedented speed with which the appeal was drawn and filed. . . . This was seen in some legal circles as an effort on the part of the District Attorney's office to 'get out from under' should anything untoward happen involving the released man." The appeals court ordered the arrest of DeMarcos, and this was interpreted as a direct rebuke to the presiding judge.

The wheels of justice moved much too slowly in this instance, for by the time the order for arrest was issued DeMarcos was already in Knoxville. After some delay, he was apprehended by the F.B.I. on an assault charge and returned to the District.

In the meantime the Court of Appeals in "Overholser v. DeMarcos" finally announced its decision in April, 1945. This decision underlined the importance of expert opinion in mental cases. The Court stated, ". . . It is not the function of the judge in habeas corpus proceedings to determine the mental condition of a person who has been committed for insanity. . . . It should be remembered that persons committed . . . are presumed to be insane. . . . There is also a presumption that the hospital staff are competent . . . and that their opinion is correct. Their determination that a petitioner should not be at large should not be lightly disregarded. . . . The issue which must ultimately be decided is whether he has sufficiently recovered from a mental disease so that he may be safely released. Lay judgment on such an issue is of little value. If, despite the judgment of the hospital staff that the petitioner has not recovered, there is a substantial doubt on the question, it becomes the duty of the court to see that a new judgment on the petitioner's sanity is made according to the procedure laid down in the District of Columbia code. This procedure requires an examination and report by the Commission on Mental Health."[38]

The Commission did, indeed, examine him on two separate occasions and concurred with the Hospital findings. In spite of this, DeMarcos persisted, and in persisting he finally triumphed. In 1946, at the time of his eighth try, he was 78, and possibly the court was influenced by the mellowing effect of his advancing years. At any rate, the court disregarded the unanimous opinion of all Hospital and Commission psychiatrists and ordered his discharge. This time he went directly to Tennessee where, I am informed, he is engaged in teaching school. In this instance the psychiatrists' dire predictions were happily, but surprisingly, unfulfilled. The DeMarcos case is the exception which proves the rule.

* * * * *

The "rule," of course, refers to the ability of psychiatrists to estimate the course of human behavior on the basis of scientific and clinical data. Never was this rule more flagrantly and tragically disregarded than in the famous case of James A. Wood, a paranoid schizophrenic who finally murdered the very lawyer who obtained his release. Wood was a retired Army sergeant who was first admitted to St. Elizabeths in 1920. He was frankly psychotic and had numerous delusions of persecution and infidelity. Shortly after admission he was sent to court to have a guardian appointed and made such a good impression on the lay jury that they judged him to be of sound mind. Because there were no legal grounds to hold him in the Hospital against his wishes, he was discharged. A few months later he shot a man in the back, seriously wounding him. According to the newspaper reports he had taken him to be an imaginary persecutor. Wood was arrested, tried, adjudged of unsound mind and returned to the Hospital in 1921 for the second time. By this time the persecutory delusions had grown to fantastic proportions. He now believed that the War Department was behind the organized persecution, that dope was being used on him, and that his wife was one of the gang.

At this period in the history of St. Elizabeths Hospital a disgruntled ex-employee and a once prominent lawyer, Colonel Charles N. Joyce, had formed an "unholy alliance" to help "free" various patients whom they considered were being unjustifiably retained. Mr. Wood proved a most willing subject for their joint efforts. Two writs in 1925 were dismissed by the court. In 1926, however, Colonel Joyce, acting as counsel and guardian ad litem, represented him in court once again. This time he was successful. The jury after an hour of deliberation found him to be of sound mind. Judge Stafford, alarmed at the finding of the jury, ordered him arrested on a Bench Warrant by virtue of the original indictment of January 29, 1921. Unbelievable as it may sound, the indictment could not be located and the patient was released. A few days later the indictment was found and he was taken into custody. At the time of his arrest the patient had the names of 6 persons whom he told the arresting officer he was going to "bump off." The list included two Supreme Court Justices and Judges Bailey and Siddons, who had denied his previous writs. Headlines appeared in the papers: "Armed Deputies Guard D. C. Court Justices." Despite all this furor Colonel Joyce was able to get his client released on a $2,000 bond. Since the jury had found him of sound mind, all that remained was to try him on the assault charge. At this trial the physicians from St. Elizabeths properly testified that Wood was of unsound mind. Accordingly the Judge dismissed the indictment and Wood was discharged into his own custody. Dr. White publicly denounced his release and described him as a "very dangerous patient with homicidal tendencies."[39]

Three years after his release Wood moved into the Virginia home of his benefactor, Colonel Joyce, and began to work assiduously on a "photographic invention" in a basement laboratory. On August 24, 1929, while Colonel Joyce was watering some flowers in his garden, Wood sneaked up behind him and fired 2 shots from a .32 calibre revolver into his back. Colonel Joyce died in Walter Reed Army Hospital two weeks later.

In the meantime a frantic manhunt was organized to apprehend the so-called "insane killer." As is most often the case in such manhunts, the culprit was not actually caught by the posse. Instead, he was apprehended in a most logical if mundane manner. The simple fact was that he ran out of money. Since he was an Army sergeant retired on disability he went to the Veterans Bureau to collect a compensation check. At this point he was taken into custody.

The last act in this tragedy was short and stark. Wood was finally committed to the State Hospital for the Criminal Insane in Marion, Virginia in January, 1930. In July, 1932 he escaped from that institution. On August 28, 1932 a skeleton was found under a railway trestle near Lynchburg, Virginia. It was positively identified as being the remains of the notorious Sergeant James A. Wood. To the present day no one knows whether he was accidentally killed or whether he plunged to his death from a moving train.

Psychiatric Expert Testimony in Celebrated Cases

Perhaps the most celebrated American trial of the nineteenth century involving psychiatric expert testimony was the trial of Charles Julius Guiteau, the assassin of President Garfield. Guiteau, a paranoid fanatic laboring under the delusion that his political efforts had been a decisive factor in the election of Garfield, had come to Washington in 1881 to claim his reward. For three months he plagued the President and his aides with numerous requests to be appointed American Consul in Paris, but his pleas fell on deaf ears. After much brooding Guiteau "was struck by what he called 'an impression' that if Garfield were out of the way all would be well with the Party and the Nation. After praying for a fortnight, Guiteau said, he became convinced that this had been a direct inspiration from the Deity to assassinate . . . the President. . . ."[40] He accomplished his mission on July 2, 1881 by firing two shots into Garfield's back. The President died on September 19, 1881.

Dr. Godding, who also examined Guiteau in jail and sat through most of the proceedings, made a prophetic statement about Guiteau. In those anxious weeks while President Garfield was hovering between life and death, he said, "If the President dies, no plea of insanity can save this man from the gallows. If the President lives, no commission of lunacy will fail to find him insane, and he will end his days in an asylum, for the tidal wave of public opinion in this case will be irresistible."[14]

Guiteau was brought to trial on November 14, 1881, and the court remained in daily session until January 25, 1882, when the final verdict of "guilty as indicted" was announced by the jury. During the trial the unprecedented number of 36 medical experts were heard, 23 for the Government and 13 for the defense.[41] The indomitable Dr. John B. Gray, Superintendent of Utica State Hospital and one of the outstanding alienists of his time, was the chief expert witness for the prosecution. Dr. Gray was a vigorous opponent of the concepts of "moral insanity" and the irresistible impulse. He was also the foremost exponent of the organic approach to mental illness. "Insanity is a disease of the brain. . . . I do not believe in emotional insanity," he said time and again.[14] Ironically enough, the chief expert for the defense who, in his testimony, stressed the morbid emotional make-up of Guiteau was a man who was primarily a neurologist, Dr. Edward C. Spitzka. This brilliant young New Yorker, who was only 29 at the time of the trial, later became president of the American Neurological Association.

Dr. Godding, who was then Superintendent of St. Elizabeths, and Dr. Nichols, who had come down from Bloomingdale, both testified briefly for the defense. Their contribution was limited to the answering of a hypothetical question which "assumed a strong hereditary taint of insanity, derangement for the last five years, domination by divine inspiration which overpowered his will, and no other motive for the killing than that of executing the divine will."[41] Both men answered that this certainly described a man of unsound mind.

After all the tense weeks of testimony it was Dr. Gray's thinking which triumphed in the end. But this thinking did not by any means represent the unanimous opinion of American psychiatry of that era. Dr. Godding, who was a great admirer of Isaac Ray, was especially troubled by Dr. Gray's "convenient" elimination of the emotional components of mental illness. He asked, "Wherein is this new enumeration of 'all the possible manifestations, of insanity' with all its convenient eliminations, to be preferred to the old? It is Gray now, but it was Ray then; and I wondered if that mental giant could come back from the shore where he has so lately gone to sleep, if we should not hear some such vigorous English as this: You cannot get rid of a fact by denying its existence."[14]

* * * * *

Dr. White had been in office only 3 years when the Stanford White murder trial created a national sensation.[42] In 1906, Harry K. Thaw, a wealthy but mentally unstable playboy, murdered the famous architect, Stanford White, presumably because of his attentions to his wife, the former Evelyn Nesbit. The fact that Evelyn Nesbit Thaw was a former chorus girl and Broadway beauty with a rather "interesting" past did nothing to dampen the public interest in the trial. The trial dragged on for months, and following Thaw's commitment to the New York State Hospital for the Criminally Insane there were further trials during the ensuing years in connection with his escapes, his extraditions, and his numerous attempts to gain his freedom. Literally scores of psychiatrists gave testimony in the course of his numerous trials. Among them were Dr. White and his close associate, Dr. Smith Ely Jelliffe. Dr. White wrote feelingly about this in his memoirs. "The Thaw case was really a unique experience. It probably may be said to be historically the beginning of the modern type of murder trial, and I may say that it and all similar experiences

. . . are not only exceedingly discreditable to our civilization but decidedly harmful."[19]

* * * * *

The famous Loeb-Leopold case of 1924, in which both Dr. White and Dr. Glueck testified, was characterized by Zilboorg[15] as "This most telling example of psycho-pathological criminal symbiosis." Zilboorg goes on to describe its unique importance as a milestone in medicolegal history: ". . . Just as the nineteenth century through its *cause célèbre*, the Guiteau case, demonstrated the essential characteristics of the old, so did the twenties of the current century—which seem to have been the golden years of awakening in the field of psychiatric criminal jurisprudence—have a *cause célèbre* revealing the modern trends. This was the case of Leopold and Loeb, the two youngsters under 20 who killed a boy of 12 to experiment and to verify their paranoid, Nietzschean philosophy of the permissibility of a perfect crime. Clarence Darrow was the chief defense counsel. . . . The work of the experts in this case was the nearest approach we have to a complete scientific, psychiatric criminological job."

Dr. White, who had been "burned" by his experience in the Thaw case, agreed to testify in the Loeb-Leopold trial in the hope that he might be able to make some improvements in the professional participation of psychiatric experts in a murder trial. Writing his memoirs 12 years later, Dr. White[19] confessed his failure: "Unfortunately, my associates and I failed completely, I am afraid, although we did make a very decided effort. We tried to get the experts for the prosecution and the defense to come together; and we finally tried to get the three families, each of whom had in reality lost a son, to come together in friendly conference and try to reach some constructive conclusion for what otherwise seemed to be a total loss in any direction we could look. . . . We also tried to get the Medical Association to fix the individual fees for the physicians, but even this, too, we found could not be accomplished. So we had to go on in the old way laid down by the law and its practices."

The court sentenced both defendants to life imprisonment instead of sending them to the gallows. The pessimism generated by his shattering experience in the Loeb-Leopold case permeated much of Dr. White's later writings on this subject. This pessimism, however, was not shared by Sergeant,[43] who, in writing about Dr. White in 1927, arrived at quite a different conclusion:

"Another epoch in psychiatric history was marked by White's remarkable testimony in the Loeb and Leopold case. Here the doctor had a unique opportunity, first, to make a complete and adequate study of the boys—with his collaborators, Healy and Glueck, he spent several continuous weeks in examining them—then, by bringing the results of the psychoanalytic clinic into the courtroom, an equally unique chance to 'tell a psychiatric story' to the public. Doctor White testified for seven hours without interruption—an unheard-of thing in his experience, for the rules of evidence generally stand in the way. Because of the melodramatic nature of popular feeling, because of the violent fears and hatreds aroused by the murder of the Franks boy, he was able to put into general circulation ideas that had before belonged only to the enlightened minority. The man in the street repudiated most of them. But many people hitherto unawakened to 'unconscious' tendencies must have begun to ask themselves whether there is not a definite connection between the prevention of crime and the understanding and cure of mental difficulties, and whether both do not depend more on the basic illumination of families and teachers than on the intervention, after the fact, of doctors and judges."

* * * * *

I have attempted to outline within the limits of my allotted time some of the major contributions to the growth of medicolegal understanding made over the last century by the Hospital, its superintendents, from Nichols to Overholser, and its famous cases, from Guiteau to Durham. In searching through the law books for the acts which brought this Hospital into being, I encountered what is perhaps the most significant contribution of all. This contribution comes from the heart and mind of this Hospital's illustrious founder, Dorothea Lynde Dix. It was she who wrote the Act of Congress of March 3, 1855, which established St. Elizabeths Hospital. The opening statement of this act is so all-encompassing, so simple and so inspiring that it merits quotation. It has the full-blown majesty and dignity of a passage from the Old Testament. She wrote:

"There shall be in the District of Columbia a Government hospital for the insane, which shall be known and designated as Saint Elizabeths Hospital, and its objects shall be the most humane care and enlightened curative treatment of the insane of the Army and Navy of the United States and of the District of Columbia."[44]

The passage of 100 years has done nothing to dim the great thinking and human feeling behind this statement.

I began my remarks by commenting on the magnificent location of the Hospital and its proximity to Congress. I shall end by expressing a conditional hope. If the noble objects of its founder are obtained, and if the high standards of its superintendents are maintained, then there is hope that psychiatry and the law will some day reach such mutual understanding that (in the District of Columbia at least) they need be separated only by the Anacostia River.

ACKNOWLEDGMENTS: The author wishes to express his gratitude to Miss Betty Reavis and Mrs. Betty Horigan of the Medical Library, St. Elizabeths Hospital, for their valued assistance in locating many of the medical references; to Miss Ruth Wolfowitz for ferreting out the old hospital records; and to Miss Lula Drennan for supplying valuable material concerning Dr. White. Special thanks are due to T. Gillespie Walsh, Esq., Chairman, Commission on Mental Health, for his generous and expert help on the legal aspects of this study. Finally, the author wishes to thank Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, for his never-failing interest, encouragement, and graciousness in making available all the Hospital facilities for this review.

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President's Page

MEDICAL CONVENTIONS ARE WORTH WHILE

It has always seemed to me that the doctor who does not attend medical conventions is short-changing himself. To practice year in and year out without attending some well planned scientific meeting is, in my opinion, to invite stagnation.

I am not one of those, however, who believe that attendance at a convention should be confined entirely to serious business. Much more will be gained if there is a proper balance between work and play. This view is borne out by a Nation-wide survey of physicians made by *Medicine in the News* (Schering), which in its August 1955 issue reports the response to questions about conventions.

It appears that approximately one fourth of all practitioners in the United States attend some 250 medical conventions each year. Eight out of every 10 physicians feel that they benefit by attendance. High on the list of benefits are valuable ideas and suggestions which can be applied to their practices.

Other facts gleaned from the survey were: 2 out of 3 physicians plan to attend a medical convention every year; a sizable number look forward to the relaxation afforded by accompanying social events; and about 1 out of every 2 tries to plan his vacation so that he can attend a medical convention.

The general tenor of the comments of those surveyed indicates that most physicians take their attendance at conventions seriously and feel that they are "equivalent to a refresher course in medicine." Some frankly said they attend only to "have a good time and meet college friends," but they were very much in the minority.

As I have already indicated, I am a strong believer in medical conventions. I hope more of our members will take advantage of every opportunity to attend them.

W. Ross Morris

Editorials

"SELFISH AND DISINTERESTED"

These are adjectives which have been applied at times to the medical profession of Washington by community leaders in describing the physicians' contributions to the Community Chest.

Whether these adjectives are rightly bestowed or not is not the point. The fact is that physicians as a group are considered by leading members of the community to be oblivious to the problems of the charitable institutions of our city. This is not a healthy situation. A physician's obligation goes beyond the patients whom he serves. It includes financial support of community health organizations. It is extremely important for physicians as a group and individually to help plan for the over-all health needs of the community and to support voluntary agencies unselfishly. In small towns physicians have always served and contributed their fair share. In large cities the personal obligation seems to become less clearcut and personal interest wanes.

From my own experience with the Community Chest, I have found it to do an over-all good job. There are a number of organizations in the Chest which, in the opinion of many people, would be better left out, but these small groups have people who are interested in them and who will contribute to their support.

Physicians should have a great interest in the Community Chest. Through the Hospital Service Agency the Chest supports hospitalization of many medically semi-indigent patients who contribute to the teaching facilities so necessary to the operation of good hospitals. The Christ Child Convalescent Farm, the Visiting Nurse Association, the Social Hygiene Society, and the Hebrew Home for the Aged all serve to facilitate the physician's ability to take care of his patients and to make his duties somewhat less onerous.

Frequently physicians have told me that they contribute a great deal of time to the care of indigent patients. This is certainly true, but this nevertheless does not minimize the obligation to serve the entire community, since the physician knew when he started medicine that part of his obligation was serving the indigent without remuneration.

Without the support of the Chest services many of the facilities helpful to us as individual practitioners would be deficient.

I urge you, therefore, to be aware of your own personal obligations to the community, and to support the Chest in the fashion that you should, not with a cold shoulder nor with a token contribution of a few dollars, but in the proper fashion. If each of us will do this it will no longer be necessary to have the constant dunning by numerous agencies for a small contribution, but rather a single drive will obtain sufficient funds to support all of the community needs.

Oscar B. Hunter, Jr., M.D.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

THE ROLE OF SALICYLATES IN URINARY CALCULUS CONTROL

In spite of the fact that our accumulated clinical and highly complicated physicochemical data concerning urinary calculus formation are extensive and very complex, it is obvious that the unknowns are still more important than the knowns.

Recent contributions concern observation on the relationship of salicylates and other substances to the glucuronic acid content of the urine and the effect of glucuronic acid on the solubility of calcium in the urine.

Drs. Edwin L. Prien and Burnham J. Walker reported their research on aspirin therapy in patients with calcium stone (a project supported by the American Urological Research Foundation) at the annual meeting of the American Urological Association in May 1955. Their observations illustrated that the solubility of calcium salts in the urine could be considered enhanced by glucuronide, which occurs in small quantities in the urine conjugated with other radicles. They stated that its precursor is probably glucose. They further stated that glucuronide combines with radicles and drugs which may be deleterious; hence glucuronide conjugation is a detoxication mechanism. The excretion of glucuronide in the urine may be increased by administering drugs which will stimulate the synthesis of glucuronide to combine with them. Some of these compounds include penicillin and some of the sulfonamides. The feeding of glucuronic acid or glucuronolactone (Prien) will not do it appreciably. These investigators administered 2 grams of aspirin a day for periods up to 18 months. This dosage resulted in a quantitative increase of glucuronide in the urine of from 200 to 400 per cent.

They reported their results in 19 unusually difficult cases of renal calculi and found unusually favorable clinical results in 17. In only 1 case did this therapy fail to favorably influence the clinical picture. This patient was making $CaHPO_4$ which they state may be entirely "fortuitous." This favorable trend occurred in the presence of such infecting organisms as *Pseudomonas aeruginosa*, *Proteus vulgaris*, staphylococci, *E. coli*, *Aerobacter aerogenes*, lactobacilli and others.

A most striking feature of this therapy was the fact that patients with inlying urethral catheters which had been a problem from rapid encrustation and encrusting cystitis were either markedly or completely controlled. They have found that if aspirin is disturbing the stomach, salicylamide and other inexpensive salicylates will be less so; or coated aspirin might be used.

Dr. Roger Baker, investigating the calcium metabolic aspects of the ground substance of the kidney as related to the mucopolysaccharides (another project supported by the American Urological Research Foundation, Inc.), also observed that aspirin would reduce the mechanism of calcium deposit in mice, but he considers this phenomenon more intimately related to the steroids. At this time I have seen spectacular influence on encrustation of urethral catheters. While my experience has not been great, it has been sufficient to demonstrate that the effect of aspirin and salicylamide in urethral catheter-carrying patients is very helpful.

Salicylamide tablets may be obtained now in 5-grain size, and they are relatively inexpensive. This salicylate is now being used in a small number of patients with problems of calcium stone formation with the idea of appraising its effect. The hazard of prolonged salicylate administration in the dose range as suggested involves practically no risk of untoward effects, but prolonged administration of massive doses of salicylates should be avoided in patients with diffuse hepatic disease, hypoprothrombinemia, and vitamin K deficiency because they prolong the prothrombin time.

In conclusion, salicylates influence the calcium solubility status of urine in such a way that calcium calculus formation is less likely. The reduction of encrustation of indwelling urethral catheters is a most valuable therapeutic phenomenon. The basic chemistry involved is not clear. Whether it is the glucuronide content of the urine alone, or the relationship of steroid pattern influence on tissue metabolism in the ground substance, or other presently unrecognized factors remains for further investigation to demonstrate.

William P. Herbst, M.D.

CAN THE HIGH COST OF DRUGS BE REDUCED?

A Reply from the Pharmaceutical Industry

To the Editor:

Your editorial, "Can the High Cost of Drugs be Reduced?" on pp. 366–367 of the July, 1955 issue of your journal, deserves some comment.

First, a word about the author's complaint that pharmaceutical manufacturers do not sufficiently stress unpleasant or dangerous side-effects. In answer, I recommend that he read in their entirety the . . . series of three advertisements published in the *Journal of the American Medical Association* not long ago to announce a new and potentially dangerous drug [Phenurone, for epilepsy, produced by Abbott Laboratories].

Then if he feels that this is a rather rare case, let him examine the section called Professional Product Information in the 1955 edition of the publication known as "Physicians' Desk Reference," published by Medical Economics, Inc. This is the medical profession's most widely used source of pharmaceutical product information. In it there will be found descriptions of every important product of 145 different pharmaceutical manufacturers. I think the author of your editorial would be quite surprised to find how frequently these descriptions feature warnings about such matters as possible side-effects, contraindications and sensitivity.

A second complaint of the author is about the addition of one drug to another to obtain a synergistic effect or to overcome side-effects. He charges, to use his words, "As a result, the physician's latitude is limited in his effort to secure a specifically desired result." Again, I recommend a perusal of the Product Information section of "Physician's Desk Reference." I have looked there and have been unable to find a single instance of a drug which cannot be prescribed by itself if the physician wishes to do so.

It may be pointed out, moreover, that pharmaceutical manufacturers remain in business not by dictating to the physician the type of pharmaceutical preparation he will use, but by catering to his preference in this matter.

This brings us to the chief complaint in the editorial. It is that pharmaceutical product promotion methods add to the cost patients must pay for medication.

Here your author acknowledges the existence of competition in the pharmaceutical industry, but ignores its chief effect. The principal effect of competition is to give the consumer greater value for his money. This is accomplished through price reductions or through product improvement or, more commonly, through some combination of both. For evidence of the effect of competition, one need only look at what has happened to the prices and products in the two most intensely competitive of all pharmaceutical fields, penicillin and cortisone.

A second but nevertheless extremely important effect of competition is that it forces every pharmaceutical manufacturer to work unceasingly not only to reduce production costs, but also the costs of marketing.

Now marketing is not a pure science. Neither, on the other hand, is it something played entirely by ear. More genuine research goes into marketing than most physicians probably realize. That statement goes for the promotion of pharmaceutical products too, for sales promotion is one of the tools of marketing. We in the pharmaceutical industry constantly test the sales effectiveness of the various kinds of promotional effort we use. We test the effectiveness of medical journal advertising. We test the effectiveness of various kinds of advertising sent through the mail. We test the effectiveness of samples distributed to physicians through the mail. We test the effectiveness of samples distributed by our detail men. We test other methods of promotion. We do this by the method of controlled experiment. That is, we measure the effectiveness of each kind of sales promotion by keeping accurate records of sales achieved in test areas against sales gained in comparable control areas.

We have turned up a lot of interesting information this way. We haven't learned all we would like to know, of course. We never will. But we do feel that we are making progress toward reducing the cost of creating demand for our products.

But, the writer of your editorial may ask, wouldn't reduction of prices accomplish the same result? Well, we have had experience with that, too, and it just does not work out. If it did, our hard-boiled stockholders, who are the owners of the business, would long since have brought about reduction in our obviously very sizable promotional appropriations in favor of more price reductions for our products.

I know that it is difficult for those outside the fields of business or economics to comprehend, but the fact is that when they are effectively employed, some of the promotional methods most strongly attacked by your author save rather than cost the consumer money. These methods accomplish that result by helping to build sales volume at lower cost than it could be built in some other manner. Increased volume, combined with the effects of competition, inevitably benefit the patient, his physician and society generally.

Finally, your editorial writer takes a dim view of the marketing of similar drugs with different trade names. I will forego the opportunity to explain why this is an essential part of our system of free competition and why it benefits rather than hurts the pocketbook of the patient. However, I cannot resist the temptation to point out the loss in revenue that your journal and most other medical periodicals would suffer if competition between different brands of similar drugs did not exist.

By way of constructive suggestion, I urge that editorial matter of similar character not be published in the future until one important step has been taken. This step is to have the matter in question examined by, and discussed with, persons familiar with the economics of sales promotion, of business in general, and of the free enterprise system as it operates in this country.

Sincerely yours,
Charles S. Downs
Vice President,
Abbott Laboratories

AMBULANCE ACCIDENTS IN WASHINGTON

In response to a request from the Traffic Committee of the Medical Society of the District of Columbia, which expressed concern over the danger of traffic accidents caused by "emergency ambulances racing through the city," our Department of Vehicles and Traffic, District of Columbia, made a study of all accidents during calendar years 1952, 1953 and 1954 in which the No. 1, or striking vehicle, was an ambulance. This study was made with particular reference to Part I, Section 6(d) of the Traffic and Motor Vehicle Regulations which states that certain privileges extended to drivers of emergency vehicles "shall not relieve the driver of an authorized emergency vehicle from the duty to drive with due regard for the safety of all persons, nor shall such provisions protect the driver from the consequences of his reckless disregard for the safety of others."

While the number of accidents involving ambulances is relatively small (1952 and 1953—17 each; 1954—14) compared to the number of accidents involving *all* motor vehicles, such difficulty as is experienced is, to a large extent, a matter of ambulances from areas and installations outside the District functioning with slight regard for D. C. traffic regulations. This conclusion is confirmed by the following accident rates:

1. During a 3-year period 29.2 per cent of all ambulance drivers operating the No. 1 or striking vehicle in the District were licensed in the states or were military personnel operating Government equipment.

2. The only fatality attributed to an ambulance driver during the period under study was caused by an operator licensed in Virginia.

This fatality occurred at 12th and Constitution Avenue, N.W., at 12:05 a.m., on a Saturday morning, March 13, 1954. The driver of a Ballston (Va.) Volunteer Fire Department ambulance, headed east on Constitution Avenue, went through a red light and hit a station wagon going south on 12th Street; the station wagon in turn hit a northbound bus. The passenger in the station wagon (and wife of the driver) was thrown to the roadway and pronounced dead on the scene.

3. Of all hazardous traffic violations committed by ambulance drivers, 37.5 per cent were by out-of-state or military licensed drivers.

4. During a 3-year study, of a total of 48 traffic accidents in which the ambulance was the striking vehicle, there was no charge of improper driving in 16, or one third, of the accidents.

It is interesting to note that in 20 of these 48 traffic accidents, the ambulance was being driven at a moderate speed, not over 20 miles per hour. The speed record in the other accidents were: 0–10 MPH—8, 21–30 MPH—9, 31–40 MPH—8, over 50 MPH—1, and "not stated"—2.

GEORGE E. KENEIPP
Director of Vehicles and Traffic,
District of Columbia

In and Out of Focus

BY THE OBSERVER

A Specialist on GP's

At frequent intervals during the year members of the Rotary Club of Washington are called upon to give so-called vocational talks. Speakers are chosen on the basis of the uniqueness of their occupations or the interest it is thought they will hold for the audience.

Recently, Dr. Edgar M. McPeak, Washington radiologist, addressed the Club on "The Relationship of the Doctor and His Patient." Seldom has a vocational talk been received with such unanimous approval. Physician-members of the Club—of which there are a sizable number—were especially well pleased. They had much praise for Dr. McPeak's straightforwardness and common-sense advice.

Familiar though readers of this column are with the subject matter, they will be impressed by the clarity and forcefulness of Dr. McPeak's presentation. Here are some of the salient points made in his talk:

On the personal relationship between physician and patient:

"The first consideration seems to be that the relation of doctor and patient is always a highly *personal* one. It is for this reason that the practice of medicine cannot become an exact science. The doctor is dealing constantly not only with a highly complicated machine—the human body—but with *persons*, who differ from each other almost infinitely in their characteristics. No doctor can afford to forget for a moment the closely interwoven relationship of the mind and the body and the reciprocal effect of one upon the other. When medical practice is *depersonalized* either in a highly organized clinic or by an ultrascientific doctor nothing but harm can come to the patient."

On the general practitioner:

"Because of the importance of the personal relationship of doctor and patient I venture to offer to you a little advice. In choosing a doctor you are selecting a physician not only skilled in the diagnosis and treatment of disease but a *person* whom you must trust with the most intimate affairs affecting the life and welfare of yourself and your family. My first suggestion is that you choose him from among the general practitioners of medicine.

"This is an age of specialism and it is true that progress in medicine has been advanced by the development of the medical specialties. This is particularly true because of the establishment within the past 25 years of a national examining board in each specialty of medicine. When you must have the services of a specialist assure yourself that he is one who holds the diploma of his board. But important as the specialist is in medicine today, he really occupies only a minor place, because 80 to 90 per cent of all of the illnesses which afflict us can best be dealt with by the general practitioner of medicine.

"I say to you as one who has practiced a medical specialty for a large part of his professional life: 'Choose a general practitioner for your family physician, one whom you can trust both for his professional competence and integrity of character, and consult specialists only upon his advice.'

"It is also my considered opinion, which I am sure you will take for what you think it is worth, that the family physician, who is your friend, who knows not only your physical condition but your background, your problems and your mental attitude toward them, is in better position to advise and help you in illness than even the most ably staffed clinic; as in the case of specialists, it is best to undergo clinic examination only upon the advice of your family doctor."

On what the patient has a right to expect of the doctor:

"First, of course, professional competence. In this consideration the patient will recall that the doctor requires nine years of college, medical school, and hospital training before he can begin his medical career. After that, medical education is a life-time job which the doctor must pursue continuously through membership and attendance in local and national medical societies and by the study of medical journals and new books. The progress of medicine in this day of new discoveries is so rapid that he must not only keep up his medical studies whatever the demands of his practice, but he finds it necessary at relatively frequent intervals to leave his practice for weeks at a time to take postgraduate courses. The patient cannot expect that his doctor, even with constant study, can have special knowledge in every field of medicine; he cannot be, as some misguided doctors attempt, 'a specialist in the skin and its contents'; the patient has a right to expect, however, that his doctor will maintain a well-rounded knowledge of the general advancements in every medical field so that he can give intelligent guidance in every emergency.

"Second, the patient has a right to expect his doctor to be a man of integrity of character and cleanness of life somewhat above the ordinary. All of this because he is admitting him to an inner circle of friendship and to intimate relationships within his family. He has a right to expect him to avoid all habits which will impair his ability to make quick decisions and to form sound judgments upon which may depend the welfare or even the life of himself or a member of his family.

"Third, the patient has a right to expect from his doctor the constant exhibition of kindness, tolerance and consideration because the doctor will often be called upon to help him or his wife or children when they are not at their best because of illness or anxiety or grief. The doctor who is a cynic, a pessimist, or a grouch can be of little help in times of trouble.

"Fourth, the patient has a right to expect his doctor to talk to him in a language that he can understand. Words are meant to convey ideas, and if the doctor talks to the patient or a member of his family in a medical jargon which he cannot understand he is left in complete ignorance and frustration. Let the doctor talk to his patient in plain English terms, respecting the latter's intelligence and not trying to cover up his own ignorance by using high-sounding Latin words.

"In short, the patient wants a doctor who will treat him not as a machine nor as an interesting *case,* but as a fellow human being. He wants a doctor who does not take an *ex cathedra* or dictatorial attitude, but who will meet him on the common level of friendship; who will counsel him as friend to friend and will thus make available to him in time of need the special knowledge and ability which his professional training and experience have given him. This, my friends, is the ideal for which every good doctor strives even though he may fall far short of it many times."

What, then, does the doctor have a right to expect from his patients? Dr. McPeak leaves it to his audience and "your own sense of right and fair-dealing. He does have a right to expect that you will give him your trust and that in all circumstances you will deal with him frankly and candidly. At least tell your doctor the truth and trust him to honor your confidence and try to find the answer to your problems."

★

The AMA and Lay Executives

Lay medical society executives took on new stature following the adoption by the American Medical Association's House of Delegates of a resolution introduced by Dr. Joseph D. McCarthy of Omaha, Nebraska, at the Atlantic City session last June. The resolution gave official recognition to the Medical Society Executives Conference and requested it to develop a planned and continuing program of indoctrination and refresher courses for its members and others who become executive employees of medical organizations. Furthermore, it urged that county and state medical societies together with national medical organizations contribute to the Conference's financial support.

The House's action was especially pleasing to your Observer, who was the first President of the Conference and one of its organizers. At the time of its organization nine years ago, he was confident that under proper guidance it could provide an excellent opportunity for self-improvement of both neophytes and veterans in the medical organization work.

Last year under the energetic and able leadership of Charles Lively, Executive Secretary of the West Virginia State Medical Association, attendance at the Conference was the largest in its history. What impressed your Observer most was the interest shown by those present (there were well over a hundred) and their active participation in discussions.

Merrill C. Smith, current President of the Conference and the Executive Secretary of the Nebraska State Medical Association, was not long in following the House's action with an announcement that a three-day meeting was being planned and would be held in Chicago next February. He and his associates have developed a tentative program which includes subjects of practical value to all who attend. The program will be presented by executives experienced in organization work and members of the faculty of Northwestern University.

These developments stirred memories of other days when laymen in medical organizations were not as universally accepted as they are today. In fact, in some quarters there was a hostility toward them which was overcome only by the high-mindedness and dedication of many men and women then in this field.

Among the pioneers was the late J. George Crownhart, Secretary of the State Medical Society of Wisconsin. George was a man of unusual intellectual endowments. He had a great capacity for making friends who not only respected his abilities but formed a deep affection for him.

Not too robust physically, George labored tirelessly for his organization. As he gained in experience, his influence extended far beyond the borders of his state. He was perhaps better known throughout the country and more highly regarded than any other lay executive of his time. If your Observer's memory serves him right, George was the first and only lay executive to address the AMA's House of Delegates. He was also among the first to speak to the Secretaries Conference, the latter composed largely of medical men. In 1938, he went to Europe for his Society to make a first-hand study of health insurance. His observations are contained in a modest volume which is still considered a valuable source of information for students of this subject.

It was your Observer's good fortune to have been closely associated with Mr. Crownhart for a number of years. In fact, it was George who was responsible for his becoming a medical society executive. Your Observer therefore appreciates more than most that the position of the lay executive today was in no small degree made possible by men of the caliber of George Crownhart.

It would be most appropriate at the first "full scale" meeting of the Conference in Chicago to recognize his dedicated service to the medical profession and his contributions to the lay executive movement.

★

The Price of Medical Freedom

"It is a strange paradox that just as American medicine has come into its own as a leader of world-wide medicine, just at the time we are rendering better service to the public than ever before in history, we should simultaneously face so much criticism," writes Dr. W. P. Sheppard, Second Vice President of the Metropolitan Life Insurance Company, in an article entitled, "An Increase in the Price of Medical Freedom" which appeared in the August, 1955 issue of *The Journal of Medical Education.*

Most of the criticism, he states, centers around the costs of medical care. Contributing factors have been the shortage of general practitioners, long delays in the waiting room, impaired doctor-patient relationships, and the inconvenience which occurs when the patient is sent from specialist to specialist.

Dr. Sheppard is skeptical of the "permanence of propaganda." In fact, he says, it is an "open question" whether it will be possible for the medical profession to preserve its traditional medical freedom for the rest of the century. If it is preserved, he believes it will be as the result of a "scientific analysis of the underlying causes of public unrest; unique, modern and intelligent efforts to create public understanding and some change in the direction of medical education."

To carry out such a program successfully, he states, will make heavy demands upon the medical profession in time, money and changed attitudes, but that it is "a small price to pay for freedom."

The proposed study of reasons for public unrest is not a task for an "armchair philosopher." It requires courageous, active investigation of the most objective kind using modern methods to investigate consumer reaction."

It is your Observer's belief that "unique, modern and intelligent efforts" are being put forth at the present time by the Public Relations Department of the AMA to bring about better understanding between physicians and their patients. However, as he has pointed out on many occasions, the most effective public relations is done in the doctor's office. In fact, the best planned and most effective public relations program is useless without the coöperation of the individual physician.

"Medical students," Dr. Sheppard urges, should be impressed with the fact that their success depends upon their ability to "win the confidence of a nonmedical public." He doubts that they are adequately prepared for this by "five years of winning the intellectual approval of older physicians." Too often, he observes, students are left to their own devices, emulating the bad as well as the good of their teachers; thus the physician-patient relationship pretty much remains status quo.

Among the necessary and what Dr. Sheppard describes as rather "urgent changes" in medical education is the need for emphasizing the physician's role as a teacher, this being a vitally important element in patient-physician relations.

"What do they know about taking fuller advantage of their natural teaching opportunities; studying the patient's level of understanding and rate of absorption of new knowledge, the value and appropriate choice of visual aids, such as diagrams, slides, printed material; the values of positive rather than negative teaching; dangers of the fear motive and of the power of suggestion? How well do they learn that any change in the patient's attitudes and values depends as much on how the doctor acts as on what he says?"

There is evidence, he concludes, that in the field of sociology the medical schools have made more progress. "Several medical schools are arranging to keep their students in touch with individuals or families over a period of a year or more, acquainting them with the technics of medical social work; of community health agencies, both voluntary and official and of the relief and welfare agencies. Thus the student learns some of the things so important for him to know in dealing successfully with a patient, such as the effect of illness on the family and the community; differences in degree of disability according to social and economic status; the objectives, problems, strengths and weaknesses of health departments; problems of medical economics; the practice of medicine in industry and medicine's privileges and responsibilities to society."

Younger practitioners who have had the benefit of the above instructions, Dr. Sheppard observes, become leaders in all matters pertaining to health in their communities.

Reading Medical Literature

In the introduction to his address, "On the Reading of Medical Literature,"* at the United States Naval Medical School last spring, Dr. Alan Gregg, Vice President of the Rockefeller Foundation, relates how in 1915, when he was a student at Harvard Medical School, he was "piqued" because he "heard such frequent praise of the Harvard Law School and so rarely anything comparable regarding the Medical School." "So," he says, "I decided to cut my classes for three days and go to the Law School lectures instead. It was worth it. I was both surprised and deeply impressed to see how much attention was given in the Law School to learning *how* to think, as contrasted with learning *what* to think. In essence it seemed to me that the difference was between the dynamic and the static—how to think prepared you for the future, what to think recorded the past . . . . I believe that the cardinal requirement for effective reading of medical literature is discrimination, and discrimination depends so directly on learning how to think. Even today our medical schools pay all but no attention to learning how to think."

In reflecting upon the question propounded to him by Sir Walter Fletcher, organizer of the British Medical Research Council, "What do you think about the medical curriculum?" Dr. Gregg came up with the observation that the determination of its content should be based on the following: "the capacity to observe, the capacity to reason from your own observations, the ability to compare your observations and reasoning with the observations and reasoning of others, and, at quite a different level of performance, the ability to put yourself in the place of the patient—to acquire or develop compassion. You can readily see that the capacity to read medical literature forms a large share of the task of comparing your observations and reasoning with that of others.

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* Fifth Annual Harold Wellington Smith Guest Lecture presented at the U. S. Naval Medical School in Bethesda, Md., April 28, 1955.

And let me add that the best—not the *only* time, but the *best* time to read medical literature is after you have done some observing and reasoning of your own, and not as a substitute for it."

Dr. Gregg places emphasis on the importance of critical reading, which he describes as being "critical of the author, whoever he be, and of his reasoning as well. The classic definition of rhetoric throws delightful light on this problem, for it says, 'Rhetoric is the art of conveying conviction without resort to logic.' " As a corollary, he says, "If you begin by learning to read other people's writing critically you may thereby learn, even though it be at long last, to be effectively critical of what you say and write yourself."

What factors enter into discriminating reading of medical literature? Dr. Gregg observes:

> "We are usually only half aware of how often and how much our past individual experience affects our capacity to evaluate as well as to reason. Nor do we always realize the subtlety of such influences: They often supply us with major assumptions that are quick and plausible but completely wrong. The physician who bases his conclusions on the experience of civilian practice can, for instance, disagree both honestly and correctly with a colleague whose practice in the armed forces has given him a radically different experience. We could wisely realize that scarcely ever can one find a mountain that looks the same from the north as it does from the south. Reality is like a mountain: It has many aspects and can only be fully portrayed by views that are not identical nor even similar because they are views from different points of the compass—views comparable to what the architects call north elevation, west elevation, south elevation, and east elevation. Right there appears the major argument for reading, namely, that it makes available to you glimpses of truth that you have not seen. In binocular vision or a stereoscopic camera the two images are not identical; and from the very fact that they are not the same, a new sense, that of distance, becomes possible. The gains from reading come usually from the contrast between what the author has observed or concluded and what you have observed and inferred."

Reading a work in which the reader has had no experience is another matter; Dr. Gregg suggests that "the need, then, is for a clear and comprehensible exposition. Authors whom I find worth reading use description and narration to tell you what something is, and definitions to tell you what it is not. The hallmarks of a good exposition are: that it translates or formulates the less familiar into terms that are more familiar; it translates the obscure into the clear, the variant into the constant, the complex into the simple, the vague into the precise, and, as I venture to say, forms into functions and states into terms of forces . . . . If an author follows none of these requirements in the first few pages of his article I save a wonderful amount of time by refusing to read further. With the almost fantastic amount of reading we all should do, knowing what not to read becomes a cardinal point of progress in the general task of learning how to read medical literature. Certainly some sort of selection is necessary. I find that it is better to base one's reading on the quality of the author's mind than on the title or the field of his experience. Lord Balfour neatly records an experience that, alas, is familiar to us all, when he speaks of 'things that would have been clearer if they had not been explained.' "

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Conservatism and the Age Factor

The conflict between youth and age is as old as history. How often one hears a young physician say something like this, "Dr. Oldster is a fine man, but he is getting along in years. Why doesn't he step aside and give Dr. Young a chance? By the way, have you noticed that Dr. Oldster is becoming more conservative? They all get that way if they are around long enough. It is time we had someone with more progressive ideas."

Few will deny that there is a link between the aging process and conservatism. But the number of calendar years is not the only factor, for there are as many conservative Dr. Youngs as there are Dr. Oldsters. If, for the sake of argument, one admits that the aging tend to be conservative, what are some of the factors that make them that way?

Well, Dr. Oldster learned a long time ago that new ideas are seldom new, that most people have short memories and make the same mistakes over and over again. He is, therefore, reluctant to go along with any proposal or idea until he has had a good look at it. This tends to irritate the Dr. Youngs, who become impatient with what they consider the marks of "an old fogie."

If heavy responsibilities fall on Dr. Oldster's shoulders, they too are inclined to make him wary and reluctant to act in haste. He may be ever so resolved to bring about needed changes, but once in the position of authority he is a different man. No long chances for him. He will play it safe.

Your Observer recalls a prominent Midwestern physician with political ambitions who sought and obtained the support of some powerful influences in his state. Early in the 1930's his associates, with considerable prompting, decided to run him for membership on the governing board of a large medical organization against a former president. The latter was charged with being a blind reactionary who refused to face up to the realities of the medical situation at that time.

The election proved as hot as anticipated, both sides bringing up their heavy artillery. The result was that the physician in the Midwest was badly beaten, his opponent winning by a handsome majority.

Knowing both individuals quite well, your Observer was certain that the loser would continue in his aggressive course, insisting that the governing board was made up of old fossils and needed new blood. However, he was mistaken, for a year or so later he learned the Midwestern physician had been convinced that if he wished to hold a position of importance in a medical organization he had better change his attitude. He finally became a member of the governing board, and he was the most conservative member of that body, in fact, so conservative it was widely commented upon.

There is nothing unique about this example, and there is no particular reason for pointing out any one organization as an example. It has always been true that "inners" are much more conservative than "outers."

Then there is the man who has acquired sufficient financial wealth to enjoy a pleasant way of life. He is usually reluctant to accept change. This is understandable. Too often, perhaps, such men hold important positions in medical organizations. The fact that they have the time and money makes them more readily available than those who are still seeking to attain a degree of financial security.

And finally, of course, there is the situation where physical deterioration is quite apparent, and cannot help but have its effect on one's thinking and attitude toward life.

It should be understood that these observations are not an admission that the majority of physicians in the older age group qualify as conservatives in the reactionary sense. At least a substantial number, your Observer has discovered, are forward-looking in their thinking and actions. One suspects chance, environment, inheritance and experience have had much to do with their maintaining the fresh outlook.

Every medical organization needs Dr. Young's enthusiasm tempered by Dr. Oldster's experience and judgment. This is the ideal combination.

T. W.

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, November 28, 1955.

For Active Membership

Edwin Davis, Jr., University of Nebraska—1946
Francis D. Fowler, Georgetown University—1954
John S. Hashim, George Washington University—1949
Leslie E. Hedgepath, Howard University—1947
August C. Herman, University of Pennsylvania—1949
C. Janet Hill, Medical College of South Carolina—1949
Alex R. Kelly, Medical College of Georgia—1938
William J. Kennard, University of Pittsburgh—1930
John Mark Keshishian, George Washington University—1950

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On the Lighter Side

The D. C. Medical Bowling League is well into its first half of the 1955–56 bowling season. The League has come a long way in its 17 years of competition—from a 4-team upstart to its present status of 14 teams with room for more. This brings to mind the standing invitation to all M.D.'s and dentists in the Metropolitan Area, who like to bowl for fun and exercise, to join up.

The newly elected officers of the D. C. Bowling League for 1955–56 are as follows: Dr. Gordon R. MacDonald, President; Dr. Frank S. Bacon, Vice President; and Mr. James Carter, Secretary and Treasurer. Anyone who is interested in rolling that ball down the mapleways on Friday nights at 9:30 p.m. should get in contact with any of the above officers. You will be welcome!

The teams and their members are listed in alphabetical order.

CASUALTY

Dr. Alfred Dibbs, *Captain*
Dr. John P. D'Angelo
Dr. Henry H. Canton
Mr. Kenneth Clark
Mr. Paul Duffy

CHILDREN'S

Dr. Frank S. Bacon, *Captain*
Dr. George A. Resta
Dr. Alvin I. Kay
Dr. Israel Kessler
Dr. Ambrose H. Cook
Dr. Thomas J. Pekin

COLUMBIA

Dr. J. Earl Kadan, *Captain*
Dr. Clyde P. Reeves
Dr. A. J. Connolly
Dr. James M. Frawley
Dr. D. Franklin Hodge
Mr. Irwin T. Sealfon

DOCTORS

Dr. W. Robert Perkins, *Captain*
Dr. Ray N. Brown
Dr. William J. Evans
Dr. Benjamin Golden
Dr. Allen S. Lloyd
Dr. Sherman A. Thomas
Dr. William K. Billingsley, Jr.
Mr. James Carter

EMERGENCY

Dr. Harold W. Hawfield, *Captain*
Dr. Hamilton P. Dorman
Dr. Parker S. Dorman
Dr. Marvin M. Gibson
Dr. Forrest V. Schumacher
Dr. Neville K. Connolly
Dr. Otto T. Englehart

GARFIELD

Dr. Ashby W. Smith, *Captain*
Dr. Elmer Klein
Dr. Duane C. Richtmeyer
Dr. William G. Cushard
Mr. John E. Grubb

GEORGETOWN

Dr. Gordon R. MacDonald, *Captain*
Dr. Roy G. Klepser
Dr. Dee R. Parkinson
Dr. Victor H. Esch
Dr. Alfred Wilson

GEORGE WASHINGTON

Dr. John W. Price, *Captain*
Dr. Bernard A. Fitzgerald
Dr. Blaine H. Eig
Dr. G. Roland Gable
Dr. William R. Moses
Mr. Frank Baiers

PRINCE GEORGES

Dr. Charles Hageage, *Captain*
Dr. George Hageage
Dr. Frederick E. Musser
Dr. John W. Perkins
Dr. Leonard S. Berman
Dr. William Brainin
Mr. T. Kendell Twigg

PROVIDENCE

Dr. Harold Heiges, *Captain*
Dr. Alan R. Crain
Dr. Eugene J. McDonald
Dr. Montague A. Cashman
Dr. Robert Levine
Dr. James W. Choate

SIBLEY #1

Dr. Richard J. McNulty, *Captain*
Dr. Francis X. Richardson
Dr. George L. Ball
Dr. John F. Finnegan
Dr. Joseph F. Belair
Dr. William H. Clements

SIBLEY #2

Dr. George H. McLain, *Captain*
Dr. J. Phelps Hand
Dr. Willis B. Morse
Dr. Raymond C. Kirchner
Dr. Sollie Katzman
Dr. Ralph W. Barnhard
Dr. Howard E. Newman
Dr. Milton F. Weingarten

SUBURBAN

Dr. Andrew J. Betz, *Captain*
Dr. S. Paul Porton
Dr. Millard F. Ottman
Dr. P. Paul Andrews
Dr. Richard J. Meyer
Dr. James B. Faris

WASHINGTON HOSPITAL CENTER

Dr. Maurice Van Kinsbergen, *Captain*
Dr. John A. Kennedy
Dr. Ray Feldman
Dr. Russell S. Page, Jr.
Dr. F. W. Timmerman

(Continued on page 574)

News and Personals

MEETINGS

The Association of Military Surgeons of the United States will hold a three-day program at the Hotel Statler, November 7, 8, and 9, devoted to the medical problems facing the military services and the Nation in an atomic war. This will be the 62nd Annual Convention of the Association.

The Convention will be addressed on the first morning by Admiral Lewis L. Strauss, Chairman of the Atomic Energy Commission; by Dr. Frank B. Berry, Assistant Secretary of Defense (Health and Medical); by the Surgeons General of the Army, Navy, Air Force, and Public Health Service; and by the medical chiefs of the Veterans Administration and the Federal Civil Defense Administration.

The first afternoon session will present the medical effects of nuclear warfare, including the characteristics of nuclear explosions, and the injuries due to blast, heat, and radiation. The program on the second day will be devoted to the principles of the care of mass casualties. The third day will be given over to organization for the management of mass casualties. Speakers will discuss the roles to be played by physicians, dentists, veterinarians, nurses, Medical Service Corps officers, and technical assistants.

The Chief of Naval Personnel has approved this convention for the awarding of retirement point credits to those Naval Reserve Medical Department officers attending under appropriate duty orders. Inactive Naval Reserve Medical Department officers who desire to receive retirement point credits for attendance at this convention should submit their request to the commandant of their home Naval district.

Complete information concerning the program is available by writing to the General Chairman, AMSUS, Office of the Surgeon General, U. S. Army, Room 2848, Main Navy Building, Washington 25, D. C.

The Southern Medical Association will convene for its 49th Annual Meeting in Houston, Texas, on November 14–17. More than 3,000 physicians are expected to attend the four-day meeting.

In addition to the 20 Sections of the Association, several other major specialty groups will meet conjointly. Among the latter will be the American College of Chest Physicians, Southern Chapter, Association for Research in Ophthalmology, Southern Gynecological and Obstetrical Society, and the Southern Society of Cancer Cytology.

All requests for hotel accommodations should be addressed to the Housing Bureau, Box 1267, Houston, Texas.

The Metropolitan Washington Tuberculosis Conference will be held on October 27 at the Department of Health, Education and Welfare, 330 Independence Avenue, S.W. Dr. I. Phillips Frohman, who is a member of the Board of Directors of the District of Columbia Tuberculosis Association, urges all members of the Medical Society's Section on General Practice and the American Academy of General Practice to attend, since this year's Conference is directed especially to and for the general physician. Registration, which is free, opens at 8:30 a.m.

Dr. Julius Wilson, Associate Director, Henry Phipps Institute of Philadelphia, will address the general session. The Medical Section, chairmanned by Dr. J. Winthrop Peabody, will feature a Panel Discussion on Newer Diagnostic Technics and Treatment of Diseases of the Chest. Dr. Sol Katz will be one of the participants.

GENERAL NEWS

The Executive Board of the Medical Society of the District Medical Society met in regular session, August 22. The selection of Mrs. Henry Grattan Doyle as recipient of the John Benjamin Nichols Award for 1955 was confirmed by the Board.

Dr. George Maksim, Chairman of the Committee on Public Health, was selected to represent the Medical Society at the AMA's Fifth Annual Conference on Physicians and Schools, which was held in Highland Park, Illinois, October 12–14.

Dr. Francis M. Forster, Dean and Professor of Neurology, Georgetown University School of Medicine, was asked to represent the Society at the Second Annual Conference on Mental Health, which will be held at the AMA headquarters in Chicago, November 18–19.

Dr. William T. Gibb, Chairman, **and Dr. Leo B. Gaffney,** Vice Chairman, respectively, of the Committee on Coöperation with the D. C. Bar Association, were designated to represent the Society at the National Conference on Citizenship, which was held in Washington at the Hotel Statler, September 19–21.

Dr. Ralph M. Caulk was asked to represent the Society at the Regional Conference on Legislation and the Medico-Legal Symposium, sponsored by the American Medical Association, to be held in New York, October 29–30.

The special committee on the selection of the Davidson Lecture recommended that the Lecture be omitted this year and that a committee be formed, which would include representatives of each of the medical schools, Government institutions in the medical field, teaching hospitals, etc., each member to endeavor to stimulate interest in the competition among the members of his group; also, that the rules be amended to admit studies not actually made in the District of Columbia but in the Washington Metropolitan Area. The Executive Board voted that this recommendation of the committee be implemented next year.

For the fourth year a **Fellowship in Clinical Cardiology (Postdoctoral) and Research Grants-in-aid** are being sponsored by the **Washington Heart Association.** Applications for the fellowship must be received on or before November 1, 1955 at the office of the Washington Heart Association, 1155-19th Street, N.W. The fellowship is open to graduates of approved medical schools, for training in the cardiovascular field. A stipend of $3,600 per annum is awarded for one or two years.

Research grants-in-aid will be made to nonprofit institutions in direct support of a particular investigator, for a specific program of research under his direction. Grants are awarded in support of research in the cardiovascular field or basic sciences related to it in amounts up to $5,000 per annum for periods of one or more years. Applications must be received on or before May 1, 1956.

Dr. John M. Evans is Chairman of the Research Committee of the Washington Heart Association.

The Military District of Washington has announced **vacancies for civilian medical officers** for service in the Washington, D. C. area at salaries ranging from $8,645 to $10,065 a year.

These are U. S. Civil Service positions in the fields of general medicine, surgery, psychiatry, roentgenology and ophthalmology with the Department of the Army. Classified Civil Service status is not required.

Applicants should be able to show completion of internship or residency in their specialties, except that active duty as a commissioned medical officer with the Veterans Administration may be substituted for the required internship.

Except in the case of a retired officer of the military or Public Health Service, applicants must hold a current license to practice medicine and surgery in a state or territory of the United States.

Application should be made by letter or telephone to the Civilian Personnel Office, Military District of Washington, Room 1543, Building T-7, Gravelly Point, Va., telephone Liberty 5-6700, extension 79231. The mailing address is Washington 25, D. C.

The Navy's new **Medical Department correspondence course, Clinical Laboratory Procedures,** NavPers 10994, is ready for distribution to eligible Regular and Reserve officers and enlisted personnel of the Medical Department.

This new course is designed to furnish enrollees a concise and ready reference to intricate clinical laboratory procedures. The clinical laboratory and biochemistry procedures contained in this course are for use in the field, as well as Naval hospital laboratories. Consisting of 8 objective question type examinations, it is evaluated at 24 promotion and nondisability retirement points.

Applications for this course should be submitted on Form NavPers 992 and forwarded via appropriate official channels to Commanding Officer, U. S. Naval Medical School, National Naval Medical Center, Bethesda 14, Maryland.

The D. C. Department of Public Health is presenting jointly with WRC-TV a series of programs under the title, "Y.O.U.—Years of Usefulness," which is devoted to seeking solutions to the problems of aging. The series began September 18 and will continue through November 6. They are scheduled for showing at 1:45 p.m. on Sunday afternoons.

A number of organizations and institutions devoted to health problems are represented on the Planning and Sponsoring Committee. Medical consultants for the series are Dr. Joseph F. Fazekas, Chief of Staff, D. C. General Hospital; Dr. Theodore C. C. Fong, Chief of Geriatric Service, St. Elizabeths Hospital; Dr. John A. Lewis, Jr., Mental Health Consultant, Region III, National Institute of Mental Health; and Dr. Edward J. Stieglitz, specialist in geriatric medicine.

Dr. Daniel L. Seckinger, Director of the Health Department, took part in the first program, September 18, when a preview of the basic problems of aging for future presentation was submitted. Dr. Leonard A. Scheele, Surgeon General of the Public Health Service, will summarize the program, October 23. Entitled, "Stitch in Time," this program will explain the need of helping senior citizens to understand that many aspects of chronic diseases are preventable.

The final two programs will be: "Never Too Old," October 30, which will describe preparation for later years, education and training for new vocations, pleasure, recreation and general usefulness; it will be summarized by the Honorable Clark Tibbitts of the Department of Health, Education, and Welfare; "Full Citizenship," November 6, will enumerate community services and activities available to help make senior citizens, with their multi-phasic problems, first-class citizens.

Dr. James E. Fitzgerald is Coördinator of a **Medical Education for National Defense** program at Georgetown University School of Medicine, which began on January 1, 1955. In preparation for this appointment, Dr. Fitzgerald attended a course on "The Medical Care of Atomic Casualties" at the Walter Reed Army Medical Center in January and traveled on the Orientation Tour for Deans and MEND Coördinators in March, 1955.

Dr. Donald Stubbs, President of Medical Service of the District of Columbia, presented Miss Wilma Jean Critchfield, head of the Appointment Section of the Personnel Division in the Navy Department's Bureau of Ships, with a special certificate commemorating her enrollment as the half millionth person to be enrolled in Medical Service. The presentation was made at a luncheon, September 13, at the Hotel Statler.

Medical Service began operations just a little more than 7 years ago in April, 1948, Dr. Stubbs recalled. Since then more than 500,000 persons have been enrolled, about half of them through Government offices in this area. The Plan has paid out more than $20,000,000 for services rendered to subscribers. The number of Participating Physicians now stands at 1,788, as compared to 826 when the Service began.

Present at the luncheon were Captain R. O. Burzynski, Assistant Chief of Bureau for Administration, Bureau of Ships, and other representatives of the Navy. In addition to Dr. Stubbs, Medical Service was represented by Dr. William P. Herbst, First Vice President; Dr. G. Halsey Hunt, Second Vice President; Theodore Wiprud, Secretary; F. P. Rawlings, Jr., Director; and George B. McGovern, Manager.

New officers for the **Clinical Society of the Diabetes Association of the District of Columbia** are:

Dr. Samuel D. Loube, *President*; Dr. James M. Moss, *Vice President*; Dr. Louis K. Alpert, *Secretary-Treasurer.*

As reported in a previous issue of the MEDICAL ANNALS, Dr. Alpert has been reappointed Chairman of the Committee on Detection and Education of the American Diabetes Association which will sponsor a National Diabetes Detection and Education Week, November 13–19. Dr. Loube will serve as Chairman for the District of Columbia during Diabetes Week.

The District Dental Society elected new officers for 1955–56, as follows:

Dr. Z. Bernard Lloyd, *President-elect*; Dr. Gustav O. Kruger, *Vice President*; Dr. John Keaveny, *Secretary*; and Dr. Edward D. Leifer, *Treasurer*.

Dr. J. Garrett Reilly was installed as President at a meeting in the Shoreham Hotel, June 14; he succeeds Dr. Karl H. Wood.

Lt. Colonel Selma Munn, of the Army Nurse Corps, has resigned as President of the **Graduate Nurses' Association** in order to fulfill an assignment to the Far East with the Army Nurse Corps. **Miss Rosalie I. Peterson,** First Vice President of the Association, will take over the presidency until the annual meeting of the GNA, which will be held November 16–18. Miss Peterson is Chief of the Nursing Section, Field Investigation and Demonstration Branch of the National Cancer Institute.

Mr. Hiram W. Jones resigned, August 31, as Executive Secretary of the **American Medical Education Foundation** to accept a position as Assistant to the President of Diagnostic and Treatment Building Corporation of America, a management consultant organization. Mr. Jones has directed the development of the Foundation since 1952. Mr. John W. Hedback, Associate Executive Secretary, will assume the responsibilities of the office relinquished by Mr. Jones until the appointment of a successor is made.

The first issue of *Medical News,* a newspaper for physicians, published as a service to the medical profession by the **Ciba Pharmaceutical Products,** has been received in the Medical Society's Executive Offices. *Medical News,* to be published every other Monday, will endeavor to bring the doctor brief and up-to-the-minute news and feature stories relating to the world of medicine. The first issue of 8 pages, tabloid size, is well illustrated and contains some interesting feature stories. Mr. Blake Cabot, author of "The Motion of the Heart," a book on cardiovascular research, is Executive Editor of *Medical News.*

Mr. Frank Robert Strunk, Washington insurance executive, known professionally to many members of the Medical Society of the District of Columbia, died, August 21, at Casualty Hospital.

Mr. Strunk, a member of the firm of Franklin and Strunk, had been engaged in insurance brokerage since 1915. In 1919, with Mr. J. Harris Franklin, he established the insurance firm of Franklin and Strunk, and became the general agent for the General Accident Insurance Co. After Mr. Franklin's death in 1946, he became the sole owner and in 1954 incorporated it as Franklin and Strunk, Inc. The offices are at 2000 P Street, N.W.

Mr. Strunk was a member of the Board of Directors of Casualty Hospital, the Washington Board of Trade, the Touchdown Club, and the Early Birds Breakfast Club. He was an elder in the Church of the Pilgrims as well as Superintendent of the Sunday School.

He is survived by his wife, Mrs. Margaret Cover Strunk, two daughters and one brother.

PERSONALS

Dr. Frank W. Konzelmann is one of nine physicians recently appointed to the Medical Advisory Committee of the American Red Cross. The purpose of the Committee will be to keep Red Cross workers in health and allied fields in touch with advancements in medical science. Dr. Konzelmann is an Active member of the D. C. Medical Society. Among the other physicians named was **Dr. Ross T. McIntire,** of Chicago and Coronado, Calif., former Surgeon General of the Navy, an Honorary member of the D. C. Medical Society.

Brigadier General Frank E. Wilson, MC, Commanding General of the 805th Hospital Center, Washington, D. C., was in summer camp training with his staff officers, from August 6–20, at Fort Belvoir, Virginia. Among his staff is **Colonel Luther W. Gray.** Both are Active members of the D. C. Medical Society.

The 805th Hospital Center had as attached medical units the 300th Field Hospital, Wilkes-Barre, Pennsylvania; 305th General Hospital, Baltimore, Maryland; 354th General Hospital, Washington,

D. C.; and the 805th Station Hospital, Wilmington, Delaware.

Dr. Wilson is Director of the Washington Office of the American Medical Association.

Dr. Worth B. Daniels, Clinical Professor of Medicine, George Washington University School of Medicine, has been elected to serve on the Armed Forces Medical Library Advisory Group for a three-year period, his term expiring on June 30, 1958. The first meeting of the AFML Advisory Group for the fiscal year will be held at the Library on October 28. Another member of this Advisory Group is Dr. Austin Smith, Chicago, Editor of the *Journal of the American Medical Association.*

Rear Admiral H. Lamont Pugh, formerly Surgeon General of the Navy, was elected Chairman of the Section on Military Medicine of the American Medical Association at its June meeting in Atlantic City, N. J. Admiral Pugh, who is an Honorary member of the District Medical Society, is now Inspector General of Medical Department Activities, a new post which he assumed August 12.

Dr. Harold Stevens, Professor of Neurology at George Washington University School of Medicine, has been elected to membership in the Philadelphia Neurological Society.

Colonel Dwight M. Kuhns, MC, USA, has been named Army Deputy Director of the Armed Forces Institute of Pathology. Colonel Kuhns, who is especially interested in the study of viral diseases in the Pacific, has contributed through his research to the knowledge of poliomyelitis, three-day fever, scrub typhus, and other disease problems of that area of the world.

Since January, 1953, Colonel Kuhns has been Chief of the Pathology and Allied Sciences Division of the Office of the Surgeon General, Department of the Army. He is an Associate member of the D. C. Medical Society.

Dr. Sidney Olansky, Medical Officer in Charge of the Venereal Disease Experimental Laboratory at Chapel Hill, North Carolina, contributed to two panel presentations during the Twenty-fourth V. D. Postgraduate Course for physicians, which was sponsored by the University of Chicago and the Public Health Service and held at the University, September 26–30. Subjects discussed at these panel meetings were: "Early Syphilis—Diagnosis and Management," September 26, and "Diagnosis and Management of Latent Syphilis, Biologic False Positive Reactions, Syphilis in Pregnancy, and Congenital Syphilis," September 27.

Dr. Olansky was until recently associated with the PHS Venereal Disease Research Laboratory at Chamblee, Georgia. He is an Associate member of the District Medical Society.

Dr. Joseph F. Fazekas, Chief of Staff, District of Columbia General Hospital, participated in a Panel Meeting on Cerebrovascular Disease with Aging during the 28th Annual Graduate Fortnight of the New York Academy of Medicine, October 10–21. The theme of the entire program was "Problems of Aging."

Dr. Laurence H. Kyle, Associate Professor of Medicine, Georgetown University School of Medicine, participated in the scientific session at the Annual Meeting of the Eighth District Branch of the New York State Medical Society, which was held September 28, at Hotel Niagara, Niagara Falls, New York. Dr. Kyle spoke on "Changing Aspects of Thyroid Disease."

Dr. Hugh H. Hussey was in Winston-Salem, N. C., September 30, where he took part in a Panel Discussion on Heart Failure before the Winston-Salem and Forsyth County Heart Symposium. He spoke on "Thrombo-embolic Disorders." The meeting was held conjointly with the Sixth Annual Meeting of the North Carolina Heart Association at the Robert E. Lee Hotel.

Rear Admiral Bartholomew W. Hogan, Surgeon General of the Navy, attended the 57th Annual Meeting of the American Hospital Association, which was held at the Traymore Hotel in Atlantic City, N. J., September 19–22. Admiral Hogan is the only medical-military Delegate-at-large of the House of Delegates of the AHA.

Dr. Charles A. Hufnagel, Director, Experimental Laboratory in Surgery, Georgetown University School of Medicine, gave a paper on "Cardiac Surgery" before the Kentucky Chapter of the American Academy of General Practice on September 29. This meeting was held in conjunction with the Annual Meeting of the Kentucky State Medical Association in Louisville, September 27–29.

Dr. Pearce Bailey, Director of the National Institute of Neurological Diseases and Blindness, will be moderator for a Panel Discussion on Multiple Sclerosis before the International Medical Assembly of the Interstate Postgraduate Medical Association of North America. The Assembly will be held in the Municipal Auditorium in Milwaukee, Wisconsin, November 14 17.

Dr. Harold Jeghers, Professor and Director of the Department of Medicine of Georgetown University School of Medicine, addressed the staff of the Boston City Hospital in Boston, August 11, on "Oral Lesions Indicative of Systemic Disease," and again, August 18, on "Leptospiroses."

Dr. Emil J. C. Hildenbrand participated in the annual program of the American Congress of Physical Medicine and Rehabilitation in Detroit, August 29. The topic he discussed was "Disability Evaluations."

Theodore Wiprud and Lawrence A. Zupan, of the Executive Offices of the Medical Society, attended the meetings of the Public Relations Institute of the American Medical Association in Chicago, August 29–September 1. Mr. Wiprud presided at the luncheon meeting, September 1, and was elected Chairman of the Public Relations Advisory Committee for 1955–56.

Dr. Maxwell Boverman addressed the staff of Sheppard and Enoch Pratt Hospital at Towson, Maryland, August 27. His subject was "A Psychotherapeutic Approach to the Acute Paranoid Psychosis."

Dr. Zigmond M. Lebensohn left Washington on September 10 for London, where he attended the Third International Congress on Criminology, September 11–17. Dr. Lebensohn will be gone about six weeks, visiting psychiatric centers on the Continent and in Israel. He will return to Washington, October 25.

SPECIAL PATIENTS REQUESTED FOR CLINICAL CENTER

The Arthritis and Metabolic Diseases Institute of the National Institutes of Health announces expansion of its clinical studies on certain aspects of diabetes and gout.

Inquiries concerning referral of suitable patients with these conditions for study and treatment will be welcomed from physicians in D. C. and nearby Maryland and Virginia.

Following are brief descriptions of these studies:

Diabetes. Two planned studies in diabetes mellitus are in progress. One deals with the nature of insulin resistance and the other with determination of whether or not diabetics exhibit any disorder in the metabolism of the B vitamins. For the first study diabetics requiring 300 units or more of insulin daily are desirable. For the second study, any male diabetic patient between the ages of 18 and 55 would be suitable for admission regardless of severity of the diabetes, adequacy of control, or presence of complications. Duration of hospitalization will be 2 to 4 weeks.

Gout. The nature of the abnormality of uric acid metabolism and the comparative uricosuric effects of certain drugs are being studied in gout and other conditions associated with hyperuricemia. Patients with any form of gout, including those with acute attacks, are desired. Duration of hospitalization is from 1 week to 1 month depending on the phase of the disease.

For further information, interested physicians should get in touch with Dr. Joseph J. Bunim, Clinical Director of the Arthritis and Metabolic Diseases Institute at the Clinical Center of the National Institutes of Health.

BOOK REVIEWS

Counseling in Medical Genetics. Sheldon C. Reed, Director, Dight Institute for Human Genetics, The University of Minnesota. Price, $4.00. Pp. 268. Philadelphia; Saunders, 1955.

This book belongs in the office of every practicing physician, and in the library of most teachers of medicine. My reaction to it was: "How in the world did I get along before without a book like this?"

Sheldon C. Reed, the author of "Counseling in Medical Genetics," is Director of the Dight Institute for Human Genetics at the University of Minnesota. Much of his work has been concerned with giving information to parents or others concerned with risks of inherited defects in children. For example, parents who have produced a child with cleft palate may want to know about the chances for this defect appearing in a second child.

Mr. Reed had been struck with the facts that most physicians are called upon from time to time for genetics counseling and that information on inherited defects was widely scattered and therefore hard for practicing physicians to find. His book was intended to supply facts about the defects that most often bring parents to the doctor for counseling. The book admirably fulfills that purpose within the strict limits of knowledge about human genetics.

H. H. H.

Clinical Disorders of Hydration and Acid-Base Equilibrium. Louis G. Welt, M.D., Professor of Medicine, Department of Medicine, University of North Carolina. Price, $6.00. Pp. 262. Boston: Little, 1955.

Every physician, whether in specialty or general practice, realizes the need for a practical knowledge of body fluid and electrolyte problems and their management. This subject has never been easy to understand, and seems to become more difficult with the widening scope provided by research.

Dr. Welt writes as an authority in this field, and has provided a concise and clear summary of the vast amount of information in the medical literature of fluid and electrolyte balance. The book begins with a consideration of normal physiology—definitions, volumes, and composition of body fluid, internal and external exchanges of water and electrolytes. A lucid discussion about acid-base relationships and renal physiology follows.

The second part of the book deals with clinical considerations, beginning with maintenance requirements for water, salts and carbohydrate, and the use of parenteral fluids. Chapters on dehydration and disorders of acid-base relationships are included. Adrenal cortical insufficiency, hyponatremia, and diabetes insipidus are discussed. The book concludes with chapters on pathogenesis and management of edema, and acute renal insufficiency.

Throughout the book Dr. Welt presents disorders of fluid and electrolyte balance as deviations from normal physiology and total body economy. He differentiates between those abnormalities of volume and concentration which represent a primary disease process and those which mirror an attempt at body compensation. This allows a clearer understanding of the aims and results of therapy.

Brief case illustrations and simple diagrams are well used. Four hundred and thirty-seven references are utilized to allow the reader to further clarify points of interest.

This book is written to make a large quantity of scientific literature interesting and clinically practical to student and physician. It accomplishes this purpose well, and will be an interesting and useful reference guide for any physician.

Marcus Schaaf, M.D.

A Ciba Foundation-Symposium: Leukaemia Research. G. E. W. Wolstenholme, O. B. E., M. A., M.B., B. Ch., and Margaret P. Cameron, M.A., A.B.L.S., Editors. Assisted by Joan Etherington. Price, $6.75. Pp. 297, with 56 illustrations. Boston: Little, 1954.

The Ciba Foundation is an international center supported financially by an international pharmaceutical firm. The administration is independent. Its purpose is to provide a medium of exchange of scientific and investigative thought which might otherwise remain undisclosed. The transactions of the informal London meetings are a combination preview and current concepts. Both incomplete studies and unpublished data are put up for discussion and dissection. The discussion is lively and the dissection thorough.

Thirty-five participants take direct or indirect part in the discussion of leukemia.

Progress, which is real, in our understanding of leukemia is reviewed, and trends which influence this progress are argued pro and con. Largely, the basis of our understanding derives from animal experimentation, and the justification of applying these conclusions to the human form of the disease is open to question. Treatment, which has not kept pace with our understanding of the mechanisms of the disease, has however made progress. Treatment is the only clinical aspect of the disease covered in this Symposium.

The chief value of this book is to be found in the hands of hematologists and cancer researchers.

Robert J. Gilston, M.D.

CHARLES WILBUR HYDE, M.D.
(1877–1955)

"He was my friend, faithful and just to me."

William Penn once defined a true friend as one who "unbosoms freely, advises justly, assists readily, adventures boldly, takes reverses patiently, defends courageously, and continues a friend unchangeably." Dr. Hyde was such a friend. No one was better at team play. When he agreed to a certain course of action on the part of your team, you never had to waste energy wondering whether he might desert you when the going got hard. His spoken word was his bond and needed neither witnesses nor a written agreement. The fact that he did not assume the obligations of friendship lightly made us treasure his friendship that much more.

Pope's words that "An honest man is the noblest work of God" were fully exemplified in his character. He had a sovereign contempt for anything that was mean or dishonorable. On some occasions he voluntarily pursued a course of action that was almost certain to prove very expensive to him personally because he considered it the honorable thing to do. He was firm and unyielding in his convictions of what was right and honorable, and personally lived up to his rigid code of conduct.

Born and reared on a farm, he possessed all the sturdy traits of character usually associated with such a background. He was very self-reliant and willing to follow wherever the realities of the situation indicated. Like his fellow Ohioan, Senator Taft, his character was extremely simple and straightforward. There was nothing devious in his makeup. All truly great people have such a character.

For a third of a century I have been most closely associated with Dr. Hyde, both as a friend and as a business partner. He was one of the originators of what is now the Medical Center, the plans for which were first proposed at a little meeting in Dr. White's office in 1924. Following this meeting, a corporation was formed to build the Washington Medical Building and stock was sold to those sufficiently adventurous to risk their money in such an unproven field. I have the original subscribers' list with the amount for which each subscribed opposite his name. The first name on this list, as on the lists of the other three corporations making up the Medical Center, was "Charles S. White" and the second name was "Charles W. Hyde." Now that the corporations making up the Medical Center have become so successful and the stock so popular that it is almost impossible to purchase, it is hard to visualize the difficulty of selling enough stock to build the Washington Medical Building.

From the beginning, Dr. Hyde was one of a small group that controlled the corporations making up the Medical Center. He was a man of unusually fine common sense and business talent, with an understanding of financial problems rarely found in the medical profession. As a director and member of the executive and finance committees (of the latter committee, he was for many years chairman), he played a major part in putting and keeping the business affairs of the corporations in a most excellent condition. The stockholders will never know how much they are indebted to him for the enviable position now held by their stocks.

CHARLES W. HYDE, M.D.

Of the original group who signed their names to the first subscription list thirty years ago less than half are still alive. Already on "the other side" are enough of the original signers to hold a stockholders' meeting with the majority of the original stock being represented, and there are enough directors and officers "over there" to transact the necessary business. Among the deceased officers are the first vice president, Dr. A. L. Miller, the first treasurer, Dr. Ralph M. LeComte, the first secretary, Dr. Oscar B. Hunter, and Dr. Hyde, chairman of the finance committee. Dr. Charles S. White alone of the original officers remains. Thus the corroding tooth of time cuts down the builders while it leaves to future generations the work of their handicraft.

Fred A. Moss, M.D.

Dr. Charles W. Hyde, a Life member of the Medical Society of the District of Columbia, died suddenly, August 22, 1955, at his home, 2900—28th Street, N.W. He had been in ill health for the last six months. A specialist in anesthesia, he had retired from active practice four years ago.

Dr. Hyde was born in Sullivan, Ohio, December 30, 1877, the son of Anson and Jennie Gordon Hyde. After completing high school, he attended Hiram College in Hiram, Ohio, and Wooster College in Wooster, Ohio. He graduated in medicine from Columbian University, now George Washington University, in 1904 and interned the following year at George Washington Hospital.

Dr. Hyde was on the teaching faculty of George Washington University as Instructor in Medicine from 1906 until 1925. His Washington practice was interrupted during World War I when he served in France with the Army Air Corps for two years, rising from First Lieutenant to the rank of Major.

Dr. Hyde was one of a group of Washington professional men who began a movement in 1924 to establish a medical center and hospital. He was Director of the Washington Medical Building, Director and former Treasurer of the Columbia Medical Building, and Director and former Treasurer of Doctors Hospital, Inc. His own offices were in the Washington Medical Building at 1801 Eye Street, N.W.

Dr. Hyde became Chief of the Department of Anesthesia at Doctors Hospital when it opened in 1940 and continued in that position until a year ago. Previous to his service at Doctors, he was on the staff of George Washington Hospital, from 1906 until 1940, and on the staffs of Episcopal Eye, Ear and Nose and Emergency Hospitals, from 1910 to 1940.

Dr Hyde became a member of the District of Columbia Medical Society in 1906 and a Life member in 1947. He had held a number of offices in the Society, including the Vice Presidency and membership on its Executive Committee. He belonged to the American Medical Association, the American Society of Anesthetists, the International College of Anesthetists, and the Clinical Club of Washington. He was affiliated with the Masons, Phi Chi medical fraternity, and the National Press Club.

His wife, the former Mrs. Corinna Roberts Hyde, died three years ago. A son, Dr. Anson R. Hyde, surgeon, with offices at 1801 Eye Street, N.W., is an Active member of the Medical Society. Dr. Hyde is also survived by two daughters, Miss Alice Hyde, of the home address, and Mrs. Frank K. Schoen, of Saginaw, Michigan.

MAY DAVIS BAKER, M.D.
(1866–1955)

Dr. May Davis Baker, one of the pioneer women doctors of the District of Columbia, died August 22, 1955, in Rutledge, Pa., at the age of 89 years. Dr. Baker had retired from practice twice, the first time in 1943, but she resumed practice during World War II and continued until a few years ago.

Dr. Baker was born in Castalia, Ohio, April 5, 1866, the daughter of Thomas R. and Sarah Chase Baker. She graduated from the State Normal School in Emporia, Kansas, and taught school for a time. Upon moving to the District of Columbia in 1893, she enrolled for medical study at Columbian College, now George Washington University, in a special class of eight women. After three years the class was disbanded and the women transferred to Howard University for the fourth year, where Dr. Baker received her medical degree in 1896. She interned at Freedmen's Hospital the following year.

From 1897 until 1902 she was associated with the Women's Clinic in Washington. She discontinued her practice to raise a family; before resuming her work in 1913, she enrolled for postgraduate study at Johns Hopkins University. Her offices and home in Washington were last located at 1767 Lanier Place, N.W.

In 1943 Dr. Baker left Washington to live in Rutledge, Pa. to be near her son, Dr. Arthur G. Baker, of Ridley Park, Pa. Because of the need for physicians during the War, Dr. Baker was granted a temporary license to practice in Pennsylvania. This license expired in 1946, when she was 80 years, but by that time Dr. Baker had become interested in the study and treatment of diabetes and wanted to continue her practice. She drove alone to Harrisburg, Pa. to take for the first time State Medical Board examinations. She secured her license and continued her practice for 4 more years.

She was married to Arthur Benoni Baker, Assistant Director of the National Zoological Park, who died in 1931.

She became a member of the Medical Association of the District of Columbia in 1897. Sometime later she allowed her membership to lapse but she was re-elected to the Medical Society of the District of Columbia in 1917. In 1948 she decided to resign because she felt that she was no longer able to attend meetings in Washington, but the Executive Board refused to accept her resignation and she was continued on the rolls as a life-time member. Upon nomination of the Executive Board, she was made an Associate Fellow of the American Medical Association in 1949.

There are few membership files in the Society which contain so many items indicative of the warm personality of the physician as the one of Dr. Baker. By constantly increasing her knowledge, she found life intensely interesting up to the time of her death.

Dr. Baker was a member and Past President of the Women's Medical Society of the District of Columbia, a member of the Daughters of the American Revolution, the Twentieth Century Club, and the Eistophos Science Club.

In addition to her son, Dr. Baker is survived by two daughters, Mrs. Ruth B. Gibson, Northhampton, Mass., and Mrs. Elizabeth D. Wells, of Berkeley, California.

CLAUDE CARLISLE CAYLOR, M.D.
(1888–1955)

Dr. Claude C. Caylor, who retired as head of radiology at Providence Hospital a year ago, died, suddenly, August 24, 1955, in Salisbury, Maryland. Dr. Caylor lived at 6108 Kennedy Drive, Kenwood, Maryland. He had been vacationing at Ocean City, Maryland, when he became ill and was taken to a hospital in Salisbury.

Dr. Caylor was born at Hunter's Mill, Virginia, in Fairfax County, July 7, 1888. He attended elementary schools in Washington and graduated from old Central High School in 1906. In 1910 he received his medical degree from the University of Virginia, following which he interned for two years at Providence Hospital.

Dr. Caylor practiced medicine in Washington until 1917, when he enlisted in the Army Medical Corps and served for 11 months in France during World War I. Except for his Army service, he was roentgenologist at Providence Hospital from 1912 until he retired in 1954. Following the War he became Chief of its Department of Radiology.

Dr. Caylor had served on the teaching staff of Georgetown University School of Medicine and as Associate in Roentgenology at Casualty Hospital.

He became a member of the Medical Society of the District of Columbia in 1915 and a Life member this year. He was a member of the American Medical Association, the Southern Medical Association, the American Roentgen Ray Society, the North American Society of Radiology, and the Providence Hospital Alumni Association. Social clubs he belonged to were the Knights of Columbus, the Holy Name Society, and the Kenwood Golf and Country Club.

He is survived by his wife, Mrs. Dorothy E. Caylor, a son, and five daughters. Dr. Claude C. Caylor, Jr., of Silver Spring, Md., also radiologist at Providence Hospital, is an Associate member of the Medical Society. The daughters are the Misses Ann and Edith Caylor, both of the home address; Mrs. Kathryne Pace and Mrs. Mary Sirk, of Kensington, Md.; and Mrs. Joan Viehmann, of Arlington, Va. He also leaves three sisters, Mrs. Vera Reid and Mrs. Cecil Spaulding, both of Alexandria, Va.. and Mrs. Mildred Mark, of Hampton, Va.

RALPH LANCASTER MORRISON, D.D.S.
(1893–1955)

Dr. Ralph L. Morrison, Associate member of the Medical Society of the District of Columbia for many years, died September 3, 1955, at his home at 5959 Addison Road, Seat Pleasant, Maryland. He maintained an office at 1726 Eye Street, N.W.

Dr. Morrison was a Washingtonian, born March 7, 1893. He graduated from George Washington University School of Dentistry in 1919, following which he served as Professor of Operative Dentistry at George Washington University and as Director of the Dental Infirmary. For 9 years, from 1920 until 1929, he was General Dental Surgeon at the George Washington Dispensary.

Dr. Morrison was a member of the American Dental Association, the D.C. Dental Society, and the American Academy of Restorative Dentistry. He was an Associate member of the District Medical Society from 1939 until 1954.

Surviving him are his wife, Mrs. Agnes K. Morrison; a son, Ralph L. Morrison, Jr.; and a daughter, Mrs. A. A. Church, of Miami Beach, Florida. He also leaves two sisters, Mrs. Martha Russell and Mrs. Charles A. Given, both of Arlington, Va., and a brother, J. Bryant Morrison, of Seat Pleasant, Md.

Sickle Cell Anemia—Ferguson, Carrington and Scott

(*Continued from page 534*)

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Supervoltage Irradiation—Phillips

(*Continued from page 538*)

To be an economic proposition, a supervoltage apparatus should give about 6,000 treatments a year, i.e., take care of about 200 patients a year. It requires a population of about a million to furnish 200 "supervoltage" patients a year, and few community hospitals serve a population of this size. If treatment is to be available nearer home, as is obviously desirable, the solution seems to lie in the coöperation of neighboring community hospitals to establish one department of radiotherapy common to all of them, which could then be fully equipped and adequately staffed.

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Cancer of Cervix—Froman

(*Continued from page 541*)

The practice of routinely coagulating what appears to be a simple erosion and of routinely excising what appears to be an uncomplicated cervical polyp without verification by smear and biopsy can work irreparable damage. It is only when the treated area does not heal that the physician suspects what he should have discovered in the first place. The result may be fatal delay in the diagnosis of cancer of the cervix or possible dissemination of the lesion.

The physician desirous of curing his patients of cancer of the cervix must be interested in diagnosing cancer in the earliest possible stage. We must always keep in mind the four most important criteria for diagnosis of carcinoma: (1) atypical cytology, (2) invasive growth, (3) tumor and ulceration, and (4) metastasis. Likewise the general physical findings and symptoms may correlate with these 4 criteria.

Finally, let us keep in mind that women over the age of 40 must be examined at least twice a year and those under 40 once a year, whether they have or have not abnormal symptoms, and that we physicians must possess the knowledge necessary to detect early carcinoma.

Since most patients go to their family physician for almost all of their ailments, we general physicians should be familiar with all methods of searching for and identifying cancer of the cervix in its incipiency.

St. Elizabeths Hospital—Lebensohn

(Continued from page 549)

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Membership

(Continued from page 561)

Marcus Schaaf, Wayne University—1946
Robert Young, George Washington University—1951

For Associate Membership

Tsung O. Cheng, Pennsylvania Medical College of St. John's University (Shanghai, China)—1950
Hal Curtis Holland, Duke University—1954

For Resident-Intern Membership

Edward Lewis, Jr., George Washington University—1955
Murray Paul, Howard University—1953

On the Lighter Side—Kadan

(Continued from page 562)

Two teams had to disband this season due to lack of attendance by their team members: Emergency #1, captained by Dr. Robert R. Montgomery, and the Good Hopers, captained by Dr. Alfred Wilson. This means that the League could use two new teams if there were the bowlers to staff them. Arlington, Homeopathic, D. C. General, and Episcopal, and any of the Service Hospitals who are interested are welcome to join the League. Or, for that matter, any group of physicians and dentists could band together and give themselves any name that they choose, and join the League. The more teams that we have the more fun and prizes at the end of the season for all. How about it, Bowlers?

J. Earl Kadan, M.D.

MEDICAL SOCIETIES WITH LIMITED MEMBERSHIP

Washington, D. C.

1955–1956

SOCIETY	PRESIDENT	SECRETARY	NO. MEETINGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETINGS
American Academy of General Practice, D. C. Chapter	S. Diener	H. J. Kurtz	4	1st Tuesday	MSDC Building
American College of Chest Physicians, Potomac Chapter	G. F. Evans, Clarksburg, W. Va.	J. W. Peabody, Jr.	1	Oct. 7	West Virginia
American Federation for Clinical Research	W. L. Henry, Jr.	A. E. Parrish	4	2nd Monday, Oct., Dec., Feb., Apr.	MSDC Building
Baltimore-Washington Dermatological	J. L. Derzavis	R. C. Robinson, Baltimore	8	3rd Thursday	Alternating Cities
Clinical Club of Washington	R. B. Castell	H. N. Dorman	7	1st Tuesday	Kennedy-Warren
Clinical Society of Diabetes Association	J. M. Moss	D. E. DeLawter	8	On call	MSDC Building
Clinico-Pathological	A. D. Daughton	A. E. Walker, Jr.	8	3rd Tuesday	Homes
Diabetes Association	S. D. Loube	L. K. Alpert	2–3	On call	MSDC Building
Georgetown Clinical	J. Dugan	P. Jaquet	8	3rd Tuesday	Hotel 2400
Georgetown University Medical Alumni Club	R. A. Osbourn	W. D. Dolan	3	On call	
George Washington University	R. R. Montgomery	W. O. Bailey, Jr.	5	3rd Wednesday	Hall A, G. W. U. Medical School
Hippocrates-Galen	R. J. Coffey	R. G. Klepser	5	1st Thursday, Nov., Jan., Feb., Mar., Apr.	Kennedy-Warren
International Medical Club	C. P. King	P. S. Constantinople		On call	Mayflower Hotel
Jacobi	I. Burka	W. Lewis	8	3rd Monday	Willard Hotel
Kober	J. R. Ewan	W. D. Foote	8	3rd Monday	Army-Navy Club
Louis Mackall	H. S. Sabin	H. P. Dorman	7	3rd Thursday	Kennedy-Warren
Medical Arts	E. P. Parker III	J. G. Ball	7	2nd Thursday	Kennedy-Warren
Metropolitan Health Officers' Association	D. L. Seckinger	R. G. Beachley	4	Jan., Apr., July, Oct.	Washington Golf and Country Club
Osler	W. A. Howard	F. V. Schumacher	8	3rd Monday	Homes
Pan American (D. C. Branch)	J. W. Peabody	D. F. Lynch	4	Mar., May, Oct., Dec.	Mayflower Hotel
Physician-Veterans of World War II	J. O. Nestor	W. J. G. Davis	2	On call	
Providence Hospital Doctors Alumni Association	F. S. Pellegrini	T. E. Curtin	8–10	Last Sunday	Providence Hospital
Rheumatism	A. Crain	V. Beelar	4	On call	Old New Orleans Restaurant
St. Elizabeths Hospital	J. Abrahams	P. Angelos	3	Fall, Winter, Spring	St. Elizabeths Hospital and MSDC Building
Society of Anesthesiologists	C. Coakley	A. S. Russell, Jr.	4	Oct. 3, Dec. 5, Feb. 6, May 7	MSDC Building
Washington Academy of Medicine	H. L. Darner	E. C. Albritton	3	Fall, Winter, Spring	Roger-Smith Hotel
Washington Academy of Surgery	H. E. Claud	J. C. Murphy	4	2nd Monday Oct., Dec., Feb., Apr.	Kennedy-Warren

Note: Most of these societies begin their meetings in October and continue through April or May.

SOCIETIES WITH LIMITED MEMBERSHIP—Continued

SOCIETY	PRESIDENT	SECRETARY	NO. MEETINGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETINGS
Washington Gynecological	R. J. Jansen	E. F. Daly	4	Oct. 29, Dec. 3, Jan. 28, Mar. 24	Willard Hotel
Washington Heart Association, Scientific Council	C. B. Ethridge	A. E. Brigulio	4	On call	
Washington Medical and Surgical	J. P. Hand, Jr.	W. Clopton	6	4th Monday, Oct., Nov., Jan.–Apr.	Hotel 2400
Washington Orthopedic Club	E. J. Gordon	M. M. Gibson	8	On call	
Washington Psychiatric	M. deG. Ruffin	M. Adland	8	4th Friday except Dec. (16) & Apr. (13)	MSDC Building
Washington Psychoanalytic	T. D. Noble	S. L. Olinick	8	2nd Friday	1720 M Street, N.W.
Washington Society of Pathologists	V. Martens	T. B. Dunn	8	Oct. 3, Nov. 1, Dec. 7, Jan. 5, Feb. 6, Mar. 6, Apr. 4, May	Armed Forces Institute of Pathology
Washington Urological	L. Lewis	G. R. Gable	6	Every 6 weeks	Doctors Hospital
Women's Medical	E. A. Nathanson	A. J. Speer	8	1st Tuesday	MSDC Building

SECTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

1955–1956

SECTION	CHAIRMAN	SECRETARY	NO. MEETINGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETINGS
Anesthesiology	C. S. Coakley	A. S. Russell, Jr.	4	Oct. 3, Dec. 5, Feb. 6, May 7	MSDC Building
Dermatology and Syphilology	N. M. Kanof	P. N. Horvath		On call	MSDC Building
Gastroenterology	M. Mensh	E. Gould	4	1st Monday	Homes
General Practice	I. P. Frohman	W. B. Morse	4	4th Tuesday, Oct., Jan., Mar., May	MSDC Building
Neurology and Psychiatry	F. M. Forster	D. O'Doherty	6	On call	MSDC Building
Ophthalmology	W. D. Foote	M. N. Stow	4	Oct. 25, Dec. 13, Feb. 14, Apr. 10	Kennedy-Warren
Otolaryngology	J. L. Levine	J. J. McFarland, Jr.	5	2nd Tuesday, Sept., Nov., Jan., March, May	Army-Navy Club
Pathology and Laboratory Medicine	F. W. Konzelmann	R. J. Fink	10	Last Friday	Homes
Pediatrics	G. Maksim	J. E. Cassidy		On call	
Radiology	U. V. Wilcox	F. V. Schumacher	4	3rd Wednesday, Oct., Jan., Mar., May	MSDC Building

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POSTPONEMENT OF CORONARY INSUFFICIENCY*

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IN THE ninetieth Psalm, entitled "A Prayer of Moses," we read that "the years of our life are three score and ten or even by reason of strength four score." Today we have no way of knowing whether this quotation made any allowance for infant mortality, the communicable, frequently fatal, diseases of childhood and youth, or of war. Regardless of this gap in our knowledge, if we consider the disorders of middle and later life, it appears that this 3,500-year-old quotation proves that with all our advances in technical knowledge we have made very little inroad upon the degenerative conditions which lead to ultimate dissolution in those who survive the earlier hazards. Certainly no physician of experience has any feeling of remorse when he finds that a relative or patient in the ninth to twelfth decade of life has made the transition from this life suddenly or within a few hours' time by reason of one of the forms of coronary insufficiency. Long continuous suffering and heavy economic drain on family or community are avoided. What exitus could be more merciful?

However, we are all too familiar with the high incidence of severe morbidity and mortality due to coronary insufficiency in the middle years of life among people in all occupational classifications, often at the peak of their productive capacity. Twenty-five years ago the majority of the medical profession were still attributing this tragic syndrome to "acute indigestion." Improvement in the training of physicians and in the diagnostic technics for determination of the existence of at least the more severe complications of coronary sclerosis led to better recognition of the condition, but it made no difference in its prevention. From time to time for several decades there have been suggestions of many possible etiologic factors in the production of the majority of these cases. Some of these which in the last decade are coming to be regarded as of greatest importance, although mentioned, were formerly dismissed because no direct linkage was then noticed. Ten and even five years ago the majority of physicians were still convinced that atherosclerosis was a necessary concomitant of age and that it progressed with varying rate in different individuals, depending upon other factors, prominent among which were hypertension and diabetes mellitus. Its progression was thought to be inexorable and irreversible. Unfortunately, there are many physicians who adhere yet to these views, although recent research work is proving that it is not inevitable in the earlier decades and it is probably reversible.

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Etiologic Factors

Among the conditions producing or contributing to coronary insufficiency may be listed severe anemia, marked aortic stenosis, extreme bradycardia, extreme tachycardia, marked temporary hypotension, such as that occurring in vasodilatation, the vasodilatation of surgical shock, blocking of the mouths of the coronary arteries by large vegetations on the aortic valve, syphilitic aortitis, rheumatic heart disease, endarteritis obliterans, rare emboli, including air emboli, race, body build, tumors, trauma, congenital abnormalities, and in approximately 99 per cent atherosclerosis.[1] Diabetes mellitus, essential hypertension and essential familial hypercholesterolemia appear to affect the incidence of atherosclerosis. Xanthoma tuberosum, xanthoma palpebrarum, and xanthelasma often accompany it.

Factors of habit and environment as well as inheritance have also been blamed at one time or another as playing a part in the incidence of coronary insufficiency. Excessive use of tobacco, inadequate use of alcohol, the xanthine beverages, high fat diets, temperament, particularly that inclined to worry, inadequate sleep, inadequate exercise, too much exercise, and inadequate vitamins have all been incriminated.

It is well known that the incidence of this condition increases with each decade. Evidence of atherosclerosis may be found post mortem even in the first decade of life. However, the earliest proved case of coronary sclerosis in a male is 18 years of age. The condition appears much later on the average in females, although Paul White reports one case in a woman 22 years old. A few cases are found in the third decade, especially in males, and a fair number in the fourth decade. By the fifth decade the condition is well established statistically, especially in males. One striking feature is that in this particular 10-year span the incidence of males to females is greater than 9 to 1 in practically all series.[1, 2, 3] This relative disproportion appears to be maintained until about 60 years of age, when the incidence among females becomes much greater. This has given rise to speculation as to a hormonal influence in the production of atherosclerosis and is one of the avenues of research which is receiving much attention at the present time. This will be discussed later.

One of the great difficulties in establishing the true etiologic factors in this condition has been the difficulty in determining the true incidence of the disorder. In the vast majority of cases it has not been detected until its severe complications have appeared. Direct means of observation of the state of the coronary arteries is not available in most patients at this time. Everyone has had or heard in the past of instances of great embarrassment and regret to a physician who, upon making a usual clinical examination of the heart and taking a resting electrocardiogram, reported that the patient had no evidence of heart disease and could go upon his way, only to hear that within a few hours he suddenly died of an acute coronary episode. The introduction of the standard exercise electrocardiogram by Dr. Arthur Master[4] and his associates and its "double" modification was an important step to the elimination of this tragic error in diagnosis. However, it is generally agreed that even this method has certain limitations, and it is quite possible to find normal exercise response in electrocardiograms of those who have suffered an acute myocardial infarction and in the same tracings show the residual evidence of that episode. The ballistocardiogram has not proved itself of value in detection of this condition, since it may show a normal tracing in those with known coronary artery disease, and a reliable pattern for the prediction of coronary artery disease has not been well established. It is still definitely in the research category and should not be relied upon by the clinician.

The mechanisms of reduction of oxygen supplied to the cardiac muscle through an insufficient hemoglobin content of the blood and the obstruction of the coronary vessels by emboli and thrombi, congenital anomalies, valvular deformities, and inflammatory and neoplastic lesions in the vicinity of the coronary ostia are obvious. In view of limitations of time and space I shall pass over a consideration of these and discuss some of the habits of the population in this country which may influence the production of coronary insufficiency. The excessive use of tobacco has been found many times to produce or aggravate the acute symptom of insufficiency known as angina pectoris. However, it is easily possible to demonstrate numerous patients with acute myocardial infarction in the fourth or fifth decade who have never used tobacco in any form at any time during their entire lives. One of the pharmacologic effects common to all the xanthine beverages is increased heart rate. Obviously, this increases the demand for oxygen in order to meet metabolic requirements of the syncytium. An additional effect common to all of these is stimulation of the central nervous system. In some individuals this appears to increase the number of working hours per day. Of course, this point is fiercely debated by the public. If it does increase the number of hours of physical or emotional activity and reduce the number of hours of complete rest, it obviously increases the work load of the heart, since the rate per minute and volume output are both reduced in the state of complete rest. Over a period of months and years this may well make a difference in the anabolic-catabolic ratio of the cardiac muscle. In turn, this may lower the total cardiac reserve and make the heart more quickly susceptible to the destructive influence of anoxemia.[5] Here again, it is possible to find many patients with a positive history of myocardial infarction who have used a minimum or no xanthine derivatives.

"Relief" by Alcohol

For a long time there has been a theory promoted among the medical profession and patients that the use of alcoholic beverages is advantageous in postponing or preventing the evidences of coronary artery disease. Traditionally this was believed to be due to the same vasodilatation that occurs in other parts of the body on ingestion of spirituous liquor. Several studies have been done which show that there is probably no direct vasodilatation produced in the coronaries by the ingestion of alcohol and that any salutary effect upon the patient, if present, is due merely to dulling of the sensorium and thus relieving apprehension where it exists. As a matter of fact, this same mechanism may be harmful in that it may make the patient less sensitive to the warning signs of coronary occlusion. Henry I. Russek, of New York, and his associates,[6] studied the effect of papaverine and 1½ ounces of whiskey upon electrocardiographic records obtained after exercise. Papaverine given orally or intravenously had a marked modifying influence upon the standard exercise electrocardiogram similar to that produced for a few moments by 1/150 grain of glyceryl trinitrate. On the other hand, the whiskey failed to produce significant alteration in the electrocardiographic pattern.

Exertion

There is a great deal of discussion about the amount of exercise to permit a person who has coronary artery disease or who has had some severe complication of it. No set rule can be established for all patients, and each one must be judged individually. Recent studies,[7] for example those in London, comparing drivers with conductors of busses, and mail clerks in sedentary jobs with those who walk a delivery route, seem to indicate quite definitely that men in the sedentary occupations are more likely to show the complications of coronary artery disease. No definite cause of this has been established, although, as we shall see below, if there is an important dietary factor present in the etiology it may be that this phenomenon is due to the failure of the body to completely metabolize ingested food in the sedentary individual. In persons who have suffered myocardial infarction there is probably some advantage in developing the size of the collateral vessels by gradually increasing exercise within the limits of the individual and short of production of a degree of congestive failure. Sudden severe and violent exercise should be prevented in all persons suspected of having this condition.

Emotion

Anyone with any experience with patients having this syndrome is well aware of a very important part played by emotional factors. Under the Cannon emergency theory, more epinephrine is secreted under any emotional tension with a resultant speeding of the cardiac rate and increase in the output and the oxygen demand. This certainly is sufficient reason for the distress suffered by many patients under these conditions. It is quite probable that there is permanent damage also produced by long-continued emotional stress.

Atherosclerosis

Studies within the last five years indicate that atherosclerosis is the king of all factors in the production of coronary insufficiency. The research in this field at the present time is continually adding evidence of great significance in the study of cholesterol and the other lipids.

In a recent official publication of the American Heart Association Katz, Pick and Stamler[8] of Chicago stated that "atherosclerosis is not a process of aging; it is not inevitable; it is probably an episodic disease, and it is certainly, in part at least, a reversible one. Alterations in the cholesterol, lipid and lipoprotein metabolism play a decisive role in the pathogenesis of atherosclerosis." Lipids are substances which resemble fats and include (1) true fats, (2) phospholipids, which on hydrolysis yield fatty acids and nitrogen or nitrogen and phosphorus, and (3) sterols. Cholesterol is the most important member of the sterol substances, which are complex, hydroaromatic alcohols, not saponifiable, not close chemically to fats, and found widely throughout living matter.[9] It is both ingested and manufactured in the human, and even when completely or almost entirely excluded from the diet is present in normal or greater quantity in the circulating blood stream. Its formula bears a close structural relationship to bile acids, vitamin D, male and the female sex hormones, desoxycorticosterone, compounds E and F, a number of the cardiac glucosides, and certain carcinogenic hydrocarbons.

There is apparently a group of individuals, cited earlier, in whom a continuous ingestion of a high caloric, high fat, high cholesterol diet finds the regulatory functions inadequate for using the cholesterol in the circulating blood and facilitates lipid deposition in the blood vessels. The United States public has been subjected to heavy bombardment over many years by the dairy industry for the purpose of increasing the use of milk and its by-products and eggs, most of which have high cholesterol content. The average drugstore lunch counter, women's bridge luncheon, elite restaurant, hors d'oeuvre and cocktail tables are notorious sources of diets high in cholesterol content. Depriving the body of cholesterol foodstuff substances but permitting vegetable fats defeats the purpose in that the body itself simply manufactures more endogenous cholesterol from the other fats. In order to have any effect at all the diet must be low in total fat. Even this will not be sufficient to bring the cholesterol level into a normal range in persons suffering from some form of hypercholesterolemia, be it in myxedema, the nephrotic syndrome, diabetes, essential familial cholesterol disorders, or any others. Excessive ingestion of fat, however, may aggravate the problem in these patients. However, sometimes patients carry this dietary restriction to the extreme, producing sharp fluctuations in the circulating glucose and repeated severe sudden demands on the glycogen depots with resultant irritability and the flagging of interest in one's work. Published diet lists frequently contain gaps, and practically the clinician must teach the patient and guide him in the use of the diet. A salutary side-effect of this unpopular procedure is the reduction of overweight. Many studies are currently being done in various population groups, and others have been done during World War II and since to study the comparative effects of various diets. Ancel Keys[10] of Minnesota has collected a tremendous amount of data to show the differences in the incidence of lipid disorders in various population groups. Enforced low-fat diets in Norway, Finland, the Netherlands and Germany during World War II were accompanied by a reduction in the incidence of complications of atherosclerotic disease, including degenerative heart disease. Other factors may be responsible, but the possibility of a close relationship cannot be summarily dismissed. Also, studies on English, Italians, Spaniards, Okinawans, Koreans, Chinese, Japanese, and Bantus of Africa who have lower cholesterol and lipid levels in the diet indicate consistently lower plasma lipid levels than those of the United States and a proportionately lower incidence of atherosclerotic disease.[8] Experimental work with animals supports the data in humans. Atherosclerosis has been produced in chicks, rabbits, hamsters and guinea pigs simply by cholesterol feeding, in dogs by a combination of cholesterol plus hypothyroidism, in monkeys by feeding a high cholesterol, high fat, and high choline diet deficient in the sulfhydryl-containing amino acids.[8]

HORMONAL FACTORS

The strange difference between the incidence of coronary insufficiency in men and women in the fourth and fifth decades has given rise to considerable speculation that there is an important hormonal factor present. In the production of this condition some experiments have been designed in chicks to show that the atherosclerotic process is reversible by administration of estrogen. In recent years Katz in Chicago, Barr in New York, and Boyle and Bragdon at the National Heart Institute have instituted more studies on humans in this category. The necessity of selection of cases and the annoying side-actions produced in the administration of estrogen have caused this work to be very slow. Furthermore, in the human life span the end-results will be slow in being proved conclusively, since our means of measuring atherosclerosis in the coronaries are very defective. However, Boyle[11] at the National Heart Institute reports some very dramatic changes in a few male patients very recently who have had other evidences of cholesterol and lipid metabolic error with, for example, dramatic disappearance of huge xanthoma tuberosa on the elbows and of xanthelasma and complete freedom from the use of nitroglycerin, in contrast to a year earlier when 15 to 20 tablets a day were required in a 39-year-old taxi driver. That patient was changed from almost complete inability to carry on his driving to ability to polish his taxicab by hand. The only exception to this result was one incident of great emotional stress when a shooting affray threatened in his cab and he suffered sharp pain and cyanosis but no actual changes in the electrocardiogram either temporarily or permanently. This patient was on 1 mg. per day orally of ethinyl estradiol. He suffered temporarily marked breast soreness, continuous gynecomastia, anterior urethritis and balanitis with the usual irritation that accompanies these, and probably complete sterility during the time he was on medication. His previous pugnacious disposition was modified, but he complained of a loss of aggressive attitude in his work.[11]

The above result raises an interesting point in the psychologic aspects of coronary insufficiency. Many of the persons of both sexes who suffer this disorder in the earlier decades hold executive positions, are in promotional work, such as insurance salesmen, are leaders in business, or are active in the professions. Heart attacks in these people have been ascribed hundreds of times to overwork, and yet another individual of the same age may be doing as much or more work and not show this unfortunate picture. The question arises, therefore, whether the individual has been driving himself too hard or because the relative imbalance between the greater amount of male sex hormone and lesser of female hormone makes him an aggressive individual and at the same time predisposes to hypocholesterolemia and its complications. Efforts to carry this postulate to female patients have been unsuccessful except for those who have already had bilateral ovariectomy, because noncastrates who are premenopausal show marked irritation of the breasts, irregularity of the menses, and general psychologic aggravation as a result of taking doses even smaller than those usually sufficient to produce any change in the lipemic pattern. In the patient who is postmenopausal and in whom cyclic or irregular bleeding recurs together with irritation of the breasts, these annoying symptoms preclude success.

Therapeutic Agents

Several products not in the hormonal group have been fabricated for reduction of hypercholesterolemia, among them choline, inositol, methionine, vitamin B_{12}, sterols, tweens, vitamin E, and various pancreatic factors. Favorable reports have been based on too short periods of observation. Experiments in various parts of the country indicate that none of these has any value.[8, 11] It has been my privilege to see the results of some experiments carried on at the National Heart Institute with chemical analysis of the total cholesterol and cholesterol esters, the phospholipids and neutral fat level, and a gravimetric study of the lipoprotein spectrum, as used by Gofman[12] in the analytical ultracentrifuge. A speed of 58,000 revolutions per minute accomplishes separation into the alpha and several beta lipoprotein groups, based on the Svedberg flotation rate. This process was used to study certain sterols which were thought possibly to interfere with the absorption of cholesterol from the intestinal tract and with tweens, which have been advertised extensively to the profession as being effective in this regard. None of these provided any observable improvement.[11]

The value of heparin as an agent in the formation of an enzymatic clearing factor has been described and it certainly will reduce the serum cholesterol in the human for a short period of time. However, the administration of this drug is expensive and very painful to the patient. The use of the various estrogens, including chlorotrianisene, or "tace," diethylstilbestrol, estradiol dipropionate and ethinyl estradiol, produces results that seem to make it for the time being a more suitable means of altering the lipids in the blood in spite of the disadvantages. The use of the cholesterol determination is the best index that we have in the laboratory of the average community to determine the presence of trouble and to try to tell what if any improvement occurs. However, this test is notably inaccurate in the hands of even the best technician, and it leaves much to be desired. The alpha lipoprotein represents about 15 per cent of the total cholesterol and the S_f 10-20 and 20-100 groups another 10 to 15 per cent. Since benefit results when the chylomicron pattern shifts from the low density betas (10 to 400) to the high density alphas, the total cholesterol may not fall enough to be distinctly demonstrative of the true change taking place. A fasting lipemic serum is of significant help; a postprandial is not, since the neutral fat level after meals produces greasy serum. Other methods of study are extremely expensive. The electrically driven analytical ultracentrifuge which uses an optical and photographic system costs about $18,000. The maintenance costs on it are very great, and it is necessary to have a technical staff of 2 persons, spending full time in the operation of it, who will become very adept at its use and can appreciate its proper operation. Recently, some work has been started to attempt to get more accurate results in the separation of the lipoprotein fractions by using the differential preparative machine for separating out the various density lipids, and then running phospholipid, cholesterol and neutral fat determinations on each of these fractions as well as on the whole serum. This is a prodigious amount of work and must be done experimentally and extensively first before any possible short cuts can be developed. However, the machines in this case cost only $5,000 and therefore are probably a little more available to some of the laboratories.

It is apparent from some of these observations that a formidable attack is finally being made on this great cause of morbidity and mortality in our country, and there are very encouraging signs that we may know soon how efficiently to prevent or reduce the incidence of atherosclerosis. We may now certainly heed the advice of reducing the unwarranted excessive use of fat in the diet in the United States. We may seek to get a more liberal amount of exercise, and not be deluded that alcohol will be the answer to any substernal pain or prevent the dreaded myocardial infarction. We should avoid overloading the stomach at any time in such patients and eschew foods known to be gas-producers. We physicians may strive to exemplify the equanimity ascribed to us so well by Osler. All can limit the degree of strenuous physical exertion to the capacity of the arteries in the aging process. We may assist in every way possible in the experimentation now going on throughout the free world to find more efficient methods of preventing and reversing this group of diseases once thought to be hopeless. The morbidity is being lowered by better methods of treatment when the presence of these conditions has been proved, and there is great possibility of reducing the incidence of these conditions if we will but use all available knowledge on every patient who will accept it and add constantly to our armamentarium as new technics are devised and new information is provided.

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MUSCULAR DYSTROPHY*

Speculation on Specificity

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THERE is evidence today to support a further careful search into the nature of muscular dystrophy. It has been assumed, at least by the average medical practitioner, that this disease is not only of rare occurrence, but also that it is a single disease affecting striated skeletal muscle, with several forms or types. This is an oversimplification, however, since close scrutiny of these "types" will reveal that there are definite differences in pathologic pattern as well as in the clinical features. Recent investigations into the responses of various skeletal muscle groups to certain hormonal agents have given impetus to the notion that perhaps these types may be distinct entities in themselves. All these questions will, therefore, be dealt with in succession in this paper, with a brief discussion of the possible conclusions which might be drawn.

Progressive muscular dystrophy is a primary degenerative disease of skeletal muscle with an estimated prevalence of 100,000 to 200,000 in the United States alone.[1] The accepted types or forms of this disease are most frequently designated by descriptions and eponyms, as the pseudohypertrophic type of Duchenne or the facioscapulohumeral type of Landouzy-Déjerine. A most recent division by Adams, Denny-Brown and Pearson,[2] however, separates the disease into four general groups, including within these the related eponymic types. This classification seems admirable, because it is doubtful if any diagnostic, genetic or prognostic purpose is served by further subdivision beyond these main groups, namely, severe generalized familial muscular dystrophy, mild restricted muscular dystrophy, progressive dystrophic ophthalmoplegia, and dystrophia myotonica.

Clinical Characteristics

Severe generalized familial muscular dystrophy is a rapidly progressive type of myopathy beginning usually in early childhood, with strong familial liability, and occurring predominately in males, with or without pseudohypertrophy. This is the most common type of the disorder, and its best known form is Duchenne's pseudohypertrophic muscular dystrophy. The disease commences in early life, before the sixth year in the majority of cases, although the disease not only may not be recognized early, but may even have its onset in adolescence or adult life.[3] The outstanding clinical characteristics are a progressive alteration in the size of the muscles and weakness. Most often enlargement of the calf muscles first attracts attention, and the infraspinatus and deltoid muscles enlarge later. Occasionally the triceps, quadriceps and glutei are similarly affected. The enlarged muscles have a firm, resilient consistency and are less strong than healthy muscles of the same size.[2] The size may increase under observation but eventually atrophy develops. The muscles of the pelvis, lumbosacral spine, and shoulder girdle become wasted from the onset, and loss of muscular power in these groups is responsible for the initial defects in posture and movement. This weakness is apparent in such symptoms as the saddling gait, difficulty in rising from a sitting position, and lordosis when standing. The limbs are usually flaccid and loose; shortening and contracture are late in appearance, except for some degree of pes equinus.[2] The tendon reflexes are lost when the muscles concerned become involved. The bones undergo demineralization, and the appearance of ossification centers is delayed. Hypertrophy of the heart has been reported,[4] but as in the other types of the disease there is no disorder of smooth muscle. The hand, face, jaw, laryngeal, pharyngeal and ocular muscles usually are relatively spared to the end.[3]

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Mild restricted muscular dystrophy is a slowly progressive myopathy, involving primarily the musculature of the shoulders and often the face, with long remissions and often complete arrest, and weak familial incidence. This type of the disease, though less common then the first type mentioned, is not rare. There is often no family history of myopathy, but severe familial incidence also occurs. The onset may be as early as 2 years or as late as 60 years, but usually occurs between the ages of 6 and 20 years. Males and females are affected equally, and its best known form is the facioscapulohumeral dystrophy of Landouzy and Déjerine. Frequently inability to close the eyes completely or to nurse properly have been present from birth,[3] but the typical first symptom is a difficulty in raising the arms above the head. The physical signs result from weakness and atrophy of muscles. There is inability to whistle or purse the lips; the lower lips may be pendulous, the nasolabial folds absent, and the whole expression masklike (the "tapir face" or "myopathic facies"). The lower parts of the trapezius are almost invariably affected, leading to poor fixation of the scapulae. As the disease advances the serratus magnus, rhomboids, latissimus dorsi, erector spinae, deltoid and spinatus muscles become atrophic. As the triceps and biceps undergo atrophy, the upper arm becomes smaller than the forearm, the so-called "Popeye arm." The gluteal and pelvic girdle muscles may become affected, but atrophy of these very rarely assumes the proportions seen in severe dystrophy. Occasionally the proximal muscles of the arm are first involved without facial weakness, the "juvenile dystrophy of Erb," but the other features—late onset, slow progression, long remissions, and frequent late involvement of the facial musculature—point to its identity with the Landouzy-Déjerine type. Another feature shared by this group is the occasional finding of congenital absence of muscles or parts of muscles in patients who later develop the typical disease pattern.[2] It should be emphasized that the use of the term "mild" in the classification of this type of dystrophy is with reference to its entire course. In many cases there is disability of a mild degree; in others disability produced by atrophy of the limb girdles may be severe before the disease becomes arrested, yet the disease lacks the inevitable momentum of the pseudohypertrophic type.

Progressive dystrophic ophthalmoplegia is a very slowly progressive myopathy involving primarily, and usually limited to, the levators of the eyelids and the external ocular muscles, resulting in ptosis and ophthalmoplegia, with familial incidence in approximately half of the cases.[5] This type may have its onset from infancy to persons over 50 years of age but most often develops before the fourth decade of life. The onset is insidious, and although it is slowly progressive in most cases, the disease may become arrested at any stage. Ptosis is almost invariably the first symptom. The progressive weakness of lateral and vertical eye movement develops so gradually that the patient may be completely unaware of his difficulty. In the advanced stages of the disease all ocular movements are paralyzed, the eyes remaining slightly divergent. There is a characteristic facies in this type, the forehead being constantly wrinkled and the head tilted backward in an effort to see beneath the drooping eyelids. Other muscles, particularly the orbicularis oculi and other facial muscles, are infrequently affected. These more extensive forms may resemble mild, restricted dystrophy. Since the characteristic feature of progressive dystrophic ophthalmoplegia is that ptosis and ocular paralysis precede any involvement of other muscles by many years, however, it is set apart from the other types of muscular dystrophy.[5]

Dystrophia myotonica is a steadily progressive, familial, distal myopathy with associated weakness of the muscles of the face and levators of the eyelids and a tendency to myotonic persistence of contraction in the affected parts and testicular atrophy. This type has as its distinguishing features, besides the distal distribution of muscular atrophy and myotonia, dystrophic changes in nonmuscular tissues, such as cataracts, testicular atrophy, and other disorders of the endocrine glands. Adams, Denny-Brown and Pearson[2] think that it is probable that most cases of muscular dystrophy beginning in the hands, forearms, and pretibial muscles are aberrant examples of myotonic dystrophy in which the myotonia is so mild as to escape notice, or has not yet developed. Muscle wasting commonly does not appear until the third decade. The small muscles of the hands are usually the first to show atrophy, although some observers[3] believe that the facial musculature is first attacked, with lack of expression present for many years. Wasting of the masseters and sternomastoids is almost invariably present, associated with a general thinness and forward curvature of the neck ("swan neck"). Atrophy of the extensor muscles of the forearm and of the anterior tibial muscles is frequently an early sign. Tendon reflexes may be lost. Weakness of the pharyngeal and laryngeal muscles becomes apparent in the weak, monotonous, nasal voice, and later dysphagia occurs; these features are peculiar to this type. The most striking characteristic is the myotonia, which is manifest both in the prolonged contraction of certain muscles following brief electrical or mechanical stimulation and in the delay in relaxation after a strong voluntary contraction. This is most evident in the hands, face and tongue, and occasionally in the limb musculature in contrast to the myotonia of myotonia congenita (Thomsen's disease), which typically can be elicited in any part of the body.[2] The myotonia has been found to precede muscle atrophy by 2 or 3 years, although the patient may not notice it. Myotonic dystrophy also differs from the other forms of myopathy by reason of its association with obvious abnormality of the endocrine glands. Testicular atrophy and reduced libido or impotence are frequently found. Less often hypothyroidism, mental deficiency and functional changes in cardiac activity are noted.[4] A high incidence of cataract in myotonic families is also an accepted feature of the general pattern of disease.

Pathologic Histologic Features

In severe generalized familial muscular dystrophy the most prominent histologic feature is the disruption of the architecture of the muscle by columns of fat cells. Fasciculi of muscle fibers, containing 5 to 20 fibers, are widely separated from the neighboring fasciculi by fatty tissue. If the disease is not far advanced, this pattern may already be present when very few of the muscle fibers show severe atrophy. Increase in the endomysial connective tissue is slight. There may also be a striking number of very small, but otherwise perfectly formed fibers with well-developed striations. Many of these fibers are derived from splitting of a single large fiber within a single endomysial sheath. These small fibers lie closely mingled with large hypertrophic fibers. Intensification of longitudinal striation resulting from separation of the columns of myofibrils can be found in some of the larger fibers and some of moderate size. Increase in number and central placement of muscle nuclei is not a common feature. Only in the late stages are the characteristic rows of nuclei of extreme atrophy found. Hyaline segments are then more common. Even in late stages the amount of connective tissue was slight, relative to the large amount of fat.[2]

In the mild restricted form of muscular dystrophy fibrosis is a notable feature. The increase in collagenous tissue is particularly evident in transverse sections where great thickening of the endomysium is apparent. In parts of the muscle adipose tissue is present in increased amounts, but never approaching the degree observed in pseudohypertrophic dystrophy. The muscle fibers in this type also show a greater range of change within each fasciculus. Huge fibers, most often pale and with central nuclei, are mingled with atrophic fibers and nuclear remnants. Splitting of fibers is moderately frequent; vacuolation is occasionally seen; and raveling of the myofibrils is frequent. This appearance is reported to be due to intrasarcolemmic rupture.[2] All stages of atrophy, with loss of striation and increasing granularity and cellularity of sarcoplasm are found.

There has been some difficulty in interpreting the muscle changes in progressive dystrophic ophthalmoplegia, since only fragments of muscle, biopsied in the course of operations to correct strabismus, have been available for study. The most convincing reported abnormalities are the great variation in size of the muscle fibers and the presence of hypertrophied fibers, while other fibers are found side by side in haphazard arrangement and separated by variable amounts of connective tissue and fat cells.[5]

In myotonic dystrophy enlargement of scattered muscle fibers, without other change except the presence of centrally placed muscle nuclei in long rows, is a very prominent feature. Indeed, Adams et al[2] state that the presence of long chains of such nuclei in an otherwise intact muscle fiber is diagnostic of dystrophia myotonica. True hypertrophy, i.e., very large fibers filled with myofibrils and with peripheral, flattened sarcolemmic nuclei, is always present and apparently is a natural consequence of myotonia. There is usually evidence that rupture of some of the large fibers has occurred during life. Isolated fibers may show such severe degenerative changes as nuclear proliferation and intense cytoplasmic staining. Wohlfart[6] describes another characteristic change, a peripheral degeneration of myofibrils, appearing in transverse sections as a ring of homogeneous sarcoplasm around a central fascicle of myofibrils. Splitting of muscle fibers is very uncommon. There is much less connective tissue than in the mild restricted form, and accumulation of fat cells is rare in fasciculi which are mildly affected but is present in the late stages of atrophy.

The over-all picture, then, is one of a purely degenerative muscular disease with absence of regenerative activity as a common fundamental characteristic. The motor and sensory nerve fibers are not damaged. The differences in pathologic histology, however, are typical.

RECENT STUDIES ON MUSCLE

As has been pointed out by Milhorat[1] and others, there has long been a search for a plausible explanation for the difference in involvement of the various muscle groups in the several types of muscular dystrophy. The commonly held opinion has been that the different clinical forms of the disease are merely different types of the same large unit. Recent work by Leonard and others,[7, 8, 9] however, may serve as a basis for a critical reëvaluation of this opinion. In his series of experiments, Leonard determined the glycogen content of different skeletal muscle groups of rats subjected to castration or hypophysectomy and investigated the effects of certain hormones on the glycogen level of these muscles. He noted that, although each group always responded in the same way to a given stimulus, there were significant differences among the groups of muscles to the procedures. He[7] observed, for example, that castration quickly caused a considerable decrease of glycogen in the perineal muscular complex and cremasteric muscles of the experimental animals, while the glycogen content of the recti femoris and of the abdominal muscles remained relatively stable for a long period after the procedure. In further studies,[8] it was shown that cortisone acetate brought about an increase of glycogen in the recti femoris, but not in the cremasteric muscle of castrated male rats; and that, while testosterone propionate did not antagonize the glycogenolytic activity of epinephrine in the recti femoris, diaphragm or abdominal muscles, cortisone acetate was very effective in countering this action of epinephrine in both recti femoris and abdominal muscles but not in those of the diaphragm.[9] These results demonstrate that not all skeletal muscles respond in like fashion to the same stimulating agent and that there exists a necessity for designating the specific skeletal muscle or muscle group involved. The implications for the person interested in muscular dystrophy are manifest, since in light of this work it is at best difficult to see how the stimulus which causes sparing of the facial muscles in the pseudohypertrophic form could be the same stimulus which causes their early involvement in the mild restricted or facioscapulohumeral form. A difference, whatever it may be, in the underlying process of these types seems evident, and, therefore, a therapeutic agent which might be effective in one type need not be effective in another.

Summary and Conclusions

1. There are 4 main accepted types of muscular dystrophy: severe generalized familial muscular dystrophy (pseudohypertrophic form); mild, restricted muscular dystrophy; progressive dystrophic ophthalmoplegia; and dystrophia myotonica.

2. The differences in the clinical characteristics of these 4 forms are clear and distinct, each with its own distinguishing characteristics.

3. The pathologic histologic characteristics of each of the 4 types also show distinct differences by which they may be distinguished.

4. Recent experimental work on response of skeletal muscle groups shows that, although each group always responds in the same way to a given stimulus, there are significant differences among the responses of the various groups to these stimuli.

5. One may be permitted to conclude, therefore, that, contrary to prevailing belief, there is a distinct difference in the underlying process or cause of each of the 4 main types of muscular dystrophy with manifest implications for possible therapy.

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AUSCULTATION OF THE CHEST USING A STETHOSCOPE WITH TWO CHEST PIECES*

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SINCE its explanation in "De L'Auscultation Mediate" (1819)[1] the stethoscope of René Théophile Hyacinthe Laennec has been the staff of diagnostic life.[2, 3] From the first rolled sheet of paper and cylinders of turned ebony, cedar, cane, beech and linden, the instrument evolved which everywhere symbolizes "modern" medicine. During its development the stethoscope underwent a variety of modifications in design.[4] First monaural, then binaural, with many types of changeable chest pieces, it continued to be redesigned until the familiar and useful Ford-Bowles type of binaural instrument appeared. Now, with the aid of electronic amplifiers built into the chest piece, with accurate recording and faithful reproduction, the sounds of the normal and ailing heart are ever within earshot.[5]

The physician knows from his memories of medical school indoctrination, as well as his daily practice, that the most important point in the use of a stethoscope is the observer's familiarity with the instrument he uses.[6] Accustomed to the regular bell or diaphragm with 2 ear pieces, he would be equally uncomfortable with Laennec's tube or the cardiologist's electronic ear. Familiarity, however, breeds partisanship. In an attempt to dispel such partisanship and to reclaim a principle of Laennec's which had sunk into obscurity, the following study was done.

METHODS AND MATERIALS

Laennec built and described a stethoscope with 2 ear pieces and 2 chest pieces. The present model (figure 1) was fashioned from elements familiar to the general physician but was combined in such a way that certain physical principles are altered.[7] A single set of ear pieces was employed, from which 2 tubes descend to a common stem to which the chest pieces are attached. Auscultation may be performed with both chest pieces applied to the chest, or with 1

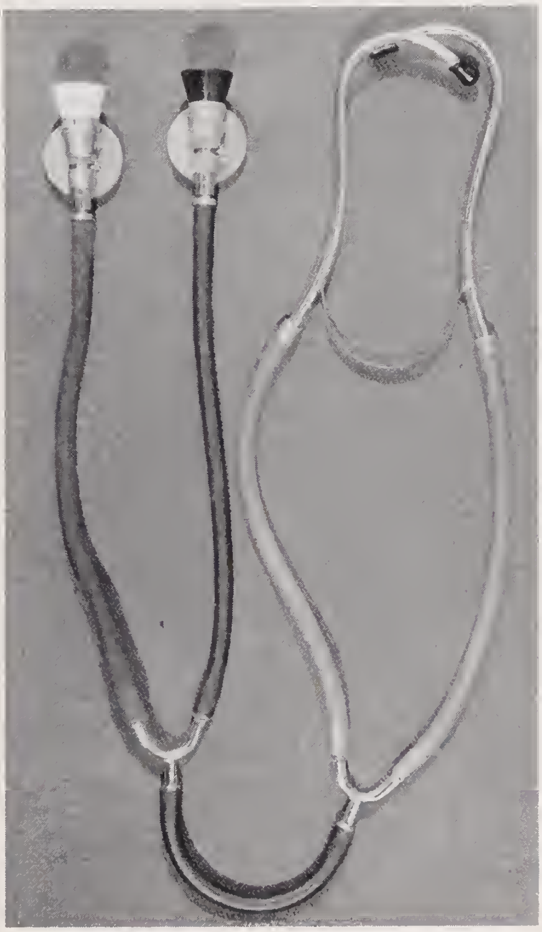

FIG. 1. Stethoscope with 2 chest pieces.

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* Research done while the author was a senior medical student at George Washington University School of Medicine.

at a time lifted, as is usually done. In addition, various types of "sound-wave traps" were interposed between 1 chest piece and the stem in an effort to delay the passage of sound when sounds from different areas arose in too close succession to be distinguishable.

One hundred and seven patients were examined with such an instrument and the auscultatory findings recorded. All arrhythmias were checked electrocardiographically. In each case the dual method was compared with the single chest piece on the basis of the following ratings: (1) dual method inferior to single method, (2) dual and single methods approximately equivalent, (3) dual method slightly superior to single method, and (4) dual method greatly superior to single method. Ratings were made on the basis of (a) ability to distinguish 2 sounds, (b) ability to identify sounds with the area from which they arose, (c) clarity of individual sounds, and (d) ease of manipulation.

Not all the patients examined had heart disease. Seven had lung diseases, and 23 had no abnormal auscultatory findings.

Results

Numbers and percentages of patients in the 4 rating groups are arranged in table 1. In 80 patients, or nearly 75 per cent of the total, auscultation with 2 chest pieces was as effective or more effective than with 1.

TABLE 1
Record of Auscultatory Findings in 107 Patients

Rating Group	No. Patients	Per cent of Total
1	27	25
2	47	45
3	22	20
4	11	10
Totals	107	100

Discussion

Individuals with no abnormal auscultatory findings of the chest comprised the greatest number in rating group 2. In these patients the distribution of normal cardiac sounds lent itself better to double auscultation than did normal lung sounds.[8] Usually the softer basal first sound was somewhat obscured by the louder first sound at the apex.[9] Distinctions between the second sound in the aortic and pulmonic valve areas were more readily made, especially when a slight disparity in closing time was present. It was helpful in evaluating changes in quality of sounds, whether normal or abnormal, to listen first in every sector of the cardiac "sound shadow" with 1 bell and diaphragm. Then, with 1 chest piece in place the other was moved from area to area, in a manner similar to the placement of an exploring electrode with respect to its reference electrode. In this manner subtle changes could be mapped and surprisingly sharp demarcations between overlapping areas of sounds were able to be made. This was especially true in situations in which there were murmurs of loud intensity occurring in different valve areas at different times in the cardiac cycle, e.g., a mitral systolic and an aortic diastolic murmur.[10] In such cases the transmission of 1 murmur was fairly easily followed while the other murmur was still present for reference and comparison.

The double chest-piece stethoscope had its greatest application in those patients of this series who had 2 murmurs of the same or different timing (systolic versus diastolic) in different valves. If both were systolic (aortic stenosis and mitral insufficiency), the differentiation between the murmurs was much more pronounced when one occurred later in its phase of the cardiac cycle than the other. Two murmurs of this type, however, if close in sequence, become more difficult to distinguish with double chest pieces than with single, hence the instances of double murmurs with a rating of 2 or 1.

In patients with 1 systolic and 1 diastolic murmur the systolic seemed better heard with 2 chest pieces, although the murmurs were of equal intensity by ordinary auscultation. Occasionally there were instances of a murmur in one area and an abnormal sound elsewhere, for example, the systolic murmur of aortic stenosis accompanied by the muted and prolonged first mitral sound of incomplete heart block. Again, if the two events were separated by an estimated 0.5 second or more, the sounds were distinguishable. Some murmurs, especially in the mitral area, received different ratings even though they were solitary systolic apical murmurs. Perhaps sounds which arise as a result of changes in cardiac muscle are not as well compared as those arising from valvular disease.[11, 12] Since there were no Graham Steele or Austin Flint murmurs recognizable as such, the opportunity to study murmurs of relative valvular dysfunction did not present itself. Physiologic murmurs (predominantly pulmonary) appeared not to differ from pathologic ones in characteristics of transmission.

When the sound of a single murmur overwhelmed the whole precordial listening field (e.g., patent ductus), other sounds of importance were drowned out when the double listening technic was applied. (See Bean[13] [1953] for a delightful primer on precordial noise.)

Arrhythmias most common to this group of patients were (1) gallop rhythms, (2) premature auricular and ventricular systoles, (3) sinus arrhythmia, (4) auricular fibrillation, and (5) idioventricular rhythms. Of these, the first 3 lent themselves well to evaluation by double chest pieces. Conduction defects did not alter the results of double chest-piece auscultation except as localized sounds were changed.

Auscultation of the lungs was aided by double chest pieces when there was pronounced and fairly well localized pathologic change in one or more lobes, provided again that there was a time differential. For example, in a case of right lower lobe pneumonia, 1 chest piece was placed over the right upper lobe (anteriorly) and 1 over the lower lobe (posteriorly), and a difference in sound could be appreciated during the short time interval between transmission of sound through normal lung tissue as opposed to edematous tissue. Rales in one area, however, could not be distinguished from rales of a different type in another area (bronchiectasis, asthmatic bronchitis), the 2 groups of sounds usually merging. The auscultatory estimation of descent of the bases becomes quite easy with 2 chest pieces, the distance between the upper and lower chest pieces at full expiration versus inspiration being proportional to the descent.

The use of an interposed valve or trap in the stethoscope assembly delayed only equivocally the conduction of sound in that tube. An electronic sidetrack would be necessary to produce this, and such a device would defeat the purpose of easy and inexpensive assembly.

CONCLUSION

A stethoscope with double chest pieces enables murmurs at different valve areas of the heart to be heard simultaneously, and makes possible comparison of their timing in the cardiac cycle. When they occur in the same phase and are separated in time (early diastolic of aortic regurgitation and late diastolic of advanced mitral stenosis) such differentiation is made easier by using 2 chest pieces, 1 over each valve area. The problem of having to flick quickly from one area to another is thus avoided, although with the single chest piece memory usually survives this short time interval. The instrument described is easy and inexpensive to assemble.

The method is not applicable to all patients but in selected cases would probably be a valuable adjunct to medical school teaching, as well as practice.

Further study of the method by comparison with phonocardiograms would be of extreme interest and necessary for standardization of results.

Methods of differential amplification and conduction delay between the 2 chest pieces appear possible of attainment but were not achieved in this study.

(Continued on page 634)

SKIN NECROSIS DUE TO LEVARTEREENOL AND THE EFFECTS OF INTRA-ARTERIAL TOLAZOLINE (PRISCOLINE)

Report of a Case

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THE association of skin necrosis with the extravasation of levarterenol (Levophed) has been reported previously.[1, 2, 3] This type of lesion would appear to be the result of the high concentration of the solution extravascularly, resulting in a prolonged action of the drug on the local vascular bed.

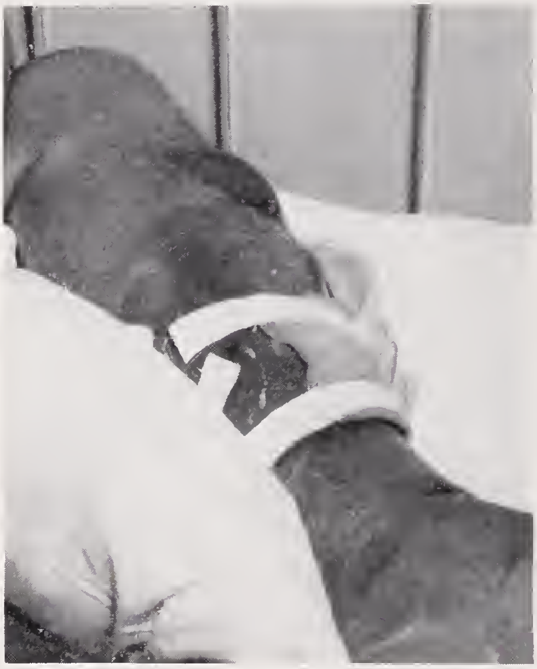

Fig. 1. After 12 hours of levarterenol infusion

The use of a polyethylene cannula has been advocated to avoid extravasation of levarterenol. However, in certain cases when a polyethylene cannula is used, especially at the ankle, large skin ulcerations have occurred. The patient reported herein developed skin necrosis while receiving a levarterenol infusion. In this instance an attempt was made to limit necrosis by the intra-arterial injection of tolazoline (Priscoline).

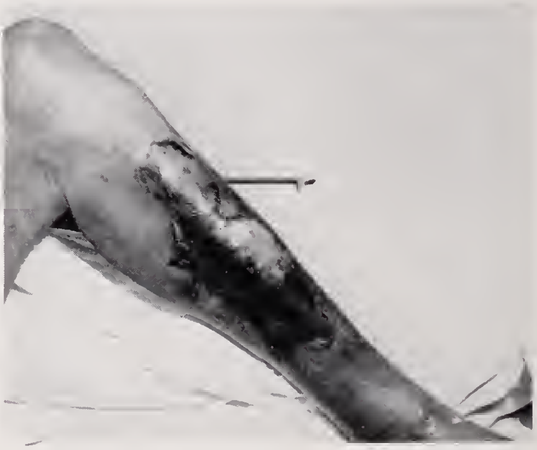

Fig. 2. Three days after the onset of skin necrosis

Report of Case

T. C., a 61-year-old Negro, had several episodes of syncope in August of 1954 and was hospitalized in a nearby hospital. The tissue obtained at bronchoscopy was bronchogenic carcinoma. The cerebrospinal fluid pressure and protein were elevated. The pulmonary lesion was treated with X-ray therapy, and the patient was released. His syncopal attacks continued, and he was admitted to the Veterans Administration Hospital, Washington, D.C.

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Physical examination revealed a poorly nourished, dehydrated Negro, who was able to respond only to simple commands. The blood pressure was 160/80 mm. Hg, and the heart rate was 84 per minute. Funduscopic examination revealed papilledema bilaterally with hemorrhages and exudates. There was no nuchal rigidity. Examination of the heart and lungs was not remarkable. The abdomen was scaphoid and the liver palpable 2 cm. below the right costal margin. The extremities were not remarkable except for early clubbing of the fingers. The deep tendon reflexes were hyperactive. Lumbar puncture revealed an initial pressure of 240 mm. H_2O. There were no cells, and the protein concentration was 90 mg. per cent.

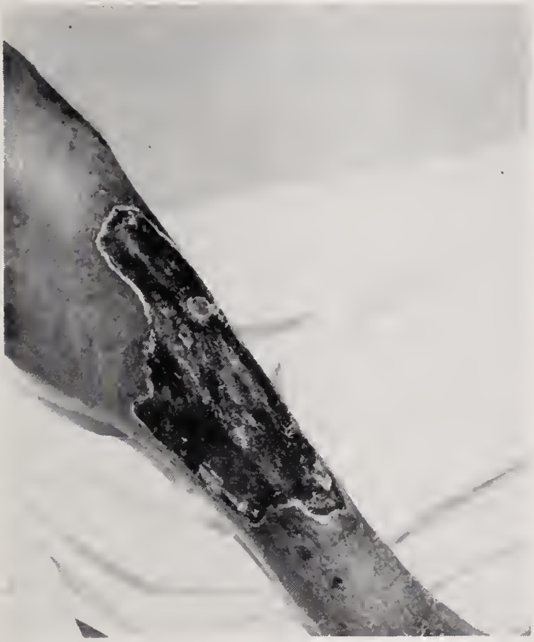

FIG. 3. Sixteen days after the onset of skin necrosis

Two weeks after admission the patient's blood pressure suddenly fell and became unobtainable. A polyethylene catheter was placed in a vein of the left lower leg and levarterenol (Levophed), 8 mg. in 1,000 c.c. of 5 per cent glucose in water, was administered at a rate of 1 mg. per hour. This was followed by a prompt return of the blood pressure to normal ranges. However, 12 hours later the limb became edematous and a dark red discoloration appeared, accompanied by several large bullae (figure 1). The levarterenol was discontinued. After the injection of tolazoline into the left femoral artery the patient immediately experienced intense heat in that limb; within 2 minutes the entire extremity became erythematous and noticeably warmer than the right. The involved area appeared smaller, and the demarcation from the adjacent erythematous skin was not as definite as it had been prior to the administration of Priscoline. The increased warmth and erythema would remain for at least 20 minutes. Injections of tolazoline, 50 mg., with 1,000,000 units of aqueous crystalline penicillin, were administered intra-arterially every 8 hours for 3 days, then daily for 4 more days. Tolazoline, 25 mg. every 8 hours, also was given orally. The blood pressure was maintained with intramuscular injections of N-methyl-phenyl-tertiary-butylamine sulfate (Wyamine) for 2 days until it became apparent that this was no longer necessary. The intra-arterial injections of tolazoline were not accompanied by hypotension.

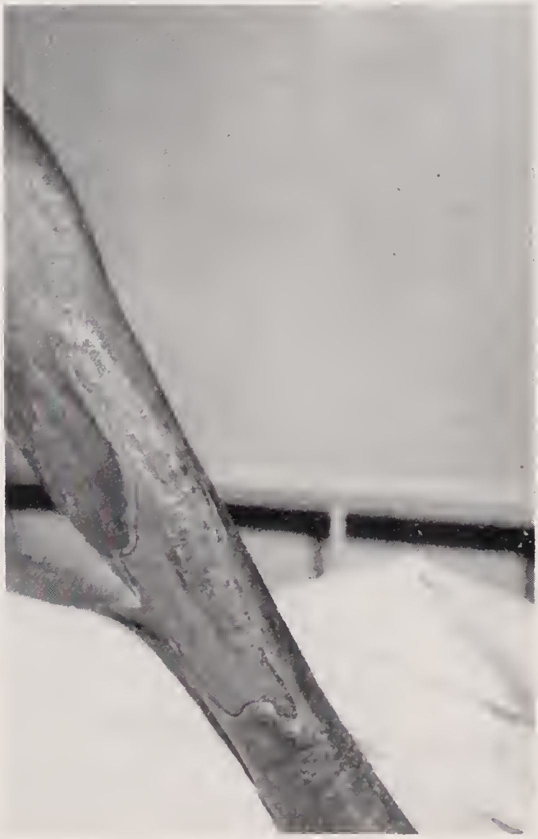

FIG. 4. Six weeks later

After the third day a large area became demarcated and necrosed (figure 2). Tissue necrosis did not appear near the cut-down site. Figure 3 reveals early healing of the necrotic area and was taken 16 days after the levarterenol infusion.

The patient was treated with colcimide intravenously, but his primary lesion progressed and he developed generalized wasting. The area of skin necrosis 6 weeks later appeared moderately reduced in size (figure 4).

Discussion

Tissue necrosis in the upper extremities is less frequent than in the lower, but its occurrence even when a polyethylene cannula is used had been reported.[4] Some of these lesions have healed spontaneously. However, many have required skin-grafting. The suggested early treatment of tissue necrosis following or during levarterenol infusion has been sterile dry dressings and hot packs.[5, 6] The immediate use of a blocking drug to reverse the effect when levarterenol has infiltrated locally seems reasonable and in this case appeared to decrease the amount and degree of necrosis. As reported elsewhere, the quantitative order of effectiveness, on a milligram basis, of agents in reversing or blocking the action of epinephrine and levarterenol is dibenzyline, phentolamine, Ilidar, and tolazoline.[7] Dibenzyline was the most effective in that it blocked all of the responses with lower doses than any of the 4 blocking drugs. However, in clinical use, tolazoline (Priscoline) might be the ideal agent, since the reversal of levarterenol and epinephrine with dibenzyline and phentolamine may produce marked hypotension.

Summary

In a patient who had extensive necrosis of the skin of the leg following an infusion of levarterenol, repeated injections of tolazoline intra-arterially appeared to have a salutary effect in limiting the extent of the necrosis without producing hypotension.

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WITHERING AND DIGITALIS

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FUCHSIUS was the first author to describe digitalis in 1542, but it was Withering who recognized its value and made its uses known to the medical world.

William Withering was born at Wellington in Shropshire in 1741.[1] His father, Edmund Withering, was an apothecary, but it is apparent that he practiced medicine. William was tutored privately at home until 1762, when he matriculated at the University of Edinburgh where he studied medicine and eventually received the degree of Doctor of Physic in 1766.

From 1767 until 1775 Withering practiced medicine at Stafford, and it was here that he studied the local flora and became an expert in botany. He enjoyed his practice in Stafford and was very popular, but the practice was a poor one and in 1775 he moved to Birmingham, where he was very successful. His extensive practice caused him to travel day and night, and while he traveled he read and wrote. On winter nights he read by a light installed in his carriage.

In 1785 Withering published the little book, "An Account of the Foxglove."[2] In this superb monograph he stated that his attention was drawn to digitalis in 1775 by the discovery that it was important in the cure of dropsy. This remedy was a decoction of herbs which an old woman, Old Mother Hutton, in his native town, Shropshire, had compounded and used to cure dropsy in cases in which qualified physicians had failed.

He made this statement: "In the year 1775, my opinion was asked concerning a family receipt for the cure of the dropsy. I was told that it had long been kept a secret by an old woman in Shropshire, who had sometimes made cures after the more regular practitioners had failed. I was informed also, that the effects produced were violent vomiting and purging; for the diuretic effects seem to have been overlooked. This medicine was composed of twenty or more different herbs; but it was not very difficult for one conversant in these subjects, to perceive, that the active herb could be no other than Foxglove."

After experimenting with foxglove at great length and satisfying himself as to the results, he prescribed it in his personal dispensary. "I soon found the Foxglove to be a very powerful diuretic; but then, and for a considerable time afterwards, I gave it in doses very much too large, and urged its continueance too long; for misled by reasoning from the effects of the squill, which generally acts best upon the kidneys when it excites nausea, I wished to produce the same effect by the Foxglove."

At first he made the leaves of the plant into a decoction, later into an infusion, and then he used the powdered form. "The more I saw of the great powers of this plant, the more it seemed necessary to bring the doses of it to the greatest possible accuracy. I suspected that this degree of accuracy was not reconcileable with the use of a decoction, as it depended not only upon the care of those who had the preparation of it, but it was easy to conceive from the analogy of another plant of the same natural order, the tobacco, that its active properties might be impaired by long boiling. The decoction was therefore discarded, and the infusion substituted in its place. After this I began to use the leaves in powder, but I still very often prescribe the infusion."

The use of digitalis quickly spread among Withering's friends in the profession at Birmingham and Edinburgh, and in 1783 the drug made its appearance in the "Edinburgh Pharmacopoeia."

Withering stated: "At length, in the year 1783, it appeared in the new edition of the Edinburgh Pharmacopoeia, into which I am told, it was received in consequence of the recommendation of Dr. Hope. But from which I am satisfied, it will be again very soon rejected, if it should continue to be exhibited in the unrestrained manner in which it has heretofore been used at Edinburgh, and in the enormous doses in which it is now directed in London."

On the basis of Withering's description of the patients he treated it has been assumed that some of his patients suffered from auricular fibrillation. But Withering recommended the use of digitalis in dropsy and anasarca only and was careful to state that it was valueless in the treatment of ovarian cysts and similar conditions. "I use it in the Ascites, Anasarca, and Hydrops Pectoris; and so far as the removal of the water will contribute to cure the patient, so far may be expected from the medicine: but I wish it not to be tried in ascites of female patients, believing that many of these cases are dropsies of the ovaria; and no sensible man will ever expect to see these encysted fluids removed by any medicine."

His book was a curb on the unqualified uses of digitalis which grew out of the tremendous popularity of the drug. "After being frequently urged to write upon this subject, and as often declining to do it, from apprehension of my own inability, I am at length compelled to take up the pen, however unqualified I may feel myself for the task.

"The use of the Foxglove is getting abroad, and it is better the world should derive some instructions, however imperfect, from my experience, than that the lives of men should be hazarded by its unguarded exhibition, or that a medicine of so much efficacy should be condemned and rejected as dangerous and unmanageable.

"It is now ten years since I first began to use this medicine. Experience and cautious attention gradually taught me how to use it.

"For the last two years I have not had the occasion to alter the modes of management; but I am still far from thinking them perfect."

Withering did not understand how this drug acted in dropsy, nor did he differentiate its action on cardiac dropsy from its action on other forms of dropsy. At the same time he was aware that it exerted some action on the heart and that it retarded the pulse. "At first I thought it necessary to bring on and continue the sickness in order to ensure the diuretic effects.

"I soon learnt that the nausea being once excited, it was unnecessary to repeat the medicine, as it was certain to recur frequently, at intervals more or less distant.

"Therefore my patients were ordered to persist until the nausea came on, and then to stop. But it soon appeared that the diuretic effects would often take place first, and sometimes be checked when the sickness or a purging supervened.

"The direction was therefore enlarged thus—Continue the medicine until the urine flows; or purging takes place.

"I found myself safe under this regulation for two or three years; but at length cases occurred in which the pulse would be retarded to an alarming degree, without any other preceding effect.

"The directions therefore required an additional attention to the state of the pulse, and it was moreover of consequence not to repeat the doses too quickly, but to allow sufficient time for the effects of each to take place, as it was found very possible to pour in an injurious quantity of the medicine, before any signals for forbearance appeared.

"Let the medicine therefore be given in the doses, and at the intervals mentioned above:—let it be continued until it either acts on the kidneys, the stomach, the pulse, or the bowels; let it be stopped upon the first appearance of any one of these effects, and I will maintain that the patient will not suffer from its exhibition, nor the practitioner be disappointed in any reasonable expectation."

(*Continued on page 634*)

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President's Page

HOLD FAST TO HIGH IDEALS

No group is more concerned with the conduct of its members than the medical profession. This is as it should be. For on no other profession rests a greater responsibility for the health and well-being of the people.

It is my belief that the vast majority of physicians recognize this fact and act accordingly. Nevertheless, since doctors are subject to all the frailties of human beings, vigilance is essential. Especially is this true at a time of rapidly changing social values like the present.

Because of the tendency toward liberalization of views toward all human conduct, the American Medical Association through an appropriate committee altered its position on basic principles on which there can be no compromise.

In the light of this situation, the Society's Executive Board recently voted to recommend the adoption of an amendment to the Constitution and By-laws providing for the establishment of a Committee on Professional Conduct. This committee will review activities of members which seem to be in conflict with the Principles of Medical Ethics of the American Medical Association, or which seemingly are not in accordance with the accepted medical mores of the community, and will make reports and recommendations to the Executive Board and the Grievance Committee. In other words, this will be an investigative committee confining itself to expressions of opinions with recommendations.

As President of the Society, I believe this is a move in the right direction. Unless we hold fast to high ideals, our profession will not continue to hold the high place which it does in public esteem.

W. Ross Morris

Editorials

THE IMPACT OF GOVERNMENT EMPLOYEE HEALTH INSURANCE

The biggest news about health insurance is its rapid growth. In only a few years this growth has produced a system of such size that the public interest in it has become paramount. Segmental interest must conform to the general good. The hardest fact of modern civilization has to do with change and the fact that rate of change is constantly accelerating. Not only are we all hemmed in by the speeding movement around us, but the increasing speed of these changes is the true source of the stress which now receives so much medical attention. Today's best is already obsolete tomorrow so that today's achievement must include the firm plan for a better tomorrow. Participation in this whole pattern of growth has led Blue Shield to a size status and to a growth momentum which permits no turning back.

General support of the objectives of proposed legislation to increase health insurance for Federal employees can be gained from these broad theoretical considerations. However, the biggest success of such a program can come only with the full support of practicing physicians. Therefore, let us consider in this limited way the effect of the Administration's plans for legislation to assist all Federal employees to obtain more health insurance than they now have. Let us remember too that Blue Cross is involved in all this discussion of Blue Shield.

The primary significance of this program lies in the effect it may have on the size of our Plan. At present we have more than a half million citizens of the Greater Washington Area covered by Medical Service. Half of these are government employees and their families, but only half of the government employees of this area are in our Plan.

If legislation is passed under which the U. S. Government will pay one third or more of the cost of health insurance premiums under specifications of considerably broader coverage than we now offer, two big possibilities exist:

1. Our coverage can be broadened to meet this demand, and by all the evidence of our history we not only could expect to retain most of the subscribers we have but to get many more, and each one would be covered to a greater extent than at present, or,

2. Our program could remain static and limited as at present and all Government employees who wanted to take full advantage of the Government's share in prepaid health insurance would be forced to get it elsewhere. The big questior then is: Should we try to grow even larger and, if so, how can we do it best? As a secondary question some might ask: Must we do it now or can we wait a while longer? On this latter point we should realize that at the best it will take more than a year to make any such change generally applicable even after it is fully approved. Also, during this changeover period the present and the new enlarged programs must both be available.

The case for growth seems to be clearcut and may be presented under several headings:

1. The expansion of our credit economy must have its effect in medicine. In only 5 years credit buying and private debt to support it has increased until it is now three or four times as great as it was in 1950! Nearly all important American family expenses must now be budg-

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

eted. Even the cosmetics, tobacco and liquor which take so much of our national income are bought "a little at a time." We cannot expect that health will continue to be bought and paid for in any other way, certainly not the big expensive packages of major medical need.

This tremendous economic trend toward installment buying undoubtedly is responsible for the enormous growth of health insurance. Beginning at the grass roots, as insurance amateurs, the medical profession, in a rare burst of creative genius, demonstrated that it would work. In spite of its youth, Blue Shield now has more than 33 million enrolled. It was only after Blue Shield took the lead that other interests began to enter this field vigorously, but these groups have grown rapidly, as we have.

Today more than 11 million labor union members (a third as many as all Blue Shield) have significant health insurance coverage. For nearly two thirds of these, management pays the entire bill, and for more than one third dependents are included. The demand is for more coverage, not less.

This great economic trend cannot be reversed by us but instead must be used. Intelligent response to it serves not only the public but also ourselves as well.

2. Increased Plan size gives a sounder actuarial base for safe operation. The advantage of size alone serves the community through the standard rate principle and serves the physician by decreasing the risk of Plan fluctuations. Physicians, by joining, underwrite Blue Shield Plans, and thus each individual share of risk is less in the large, stable Plan. This fact supports the paradox that the physician who is less than enthusiastic about his Plan actually has a big incentive to help it grow and thus reduce his personal hazard.

3. The increase toward community-wide coverage decreases operating costs of the Plan, permits standard subscription charges, and elevates the percentage return in the form of fees. It assures a high collection rate even for many who could not pay without the benefit of prepayment privilege, thus elevating the average benefits to physicians.

4. Larger size increases the effect of our operation on the competitive factor. Our service benefit fee schedules drive upward the indemnity schedules of commercial carriers to more realistic levels. Good examples of this are in the changes that have been made in the "standard policy" as outlined in the Federal employee health bill at its various stages of development. Early talk was of a $3.00 medical visit and a maximum $200.00 surgical schedule. Study of our programs' higher rates must have aided the elevation of these sights significantly.

All of these are arguments for growth under normal influences. Proposed legislation would give significant financial support to all Federal employees to obtain coverage similar to that which all organized physician groups of this area are now studying as a skeleton outline of an enlarged program for Medical Service. Furthermore, this stimulus, along with the growth of many other national accounts, has resulted in a stronger move toward a uniform schedule of benefits to be made available all over the country by Blue Shield Plans. The essential parts of the move toward such uniformity for us are the modification of our income and fee schedule levels and the broadening of coverage to include in-hospital medical care and diagnostic study in hospital or office. The need for us to adopt the broader program was already clear. The effect of the Government's legislative program is to add weight to this need. We cannot wait to develop and approve our supplemental program because it must be already available and waiting when the actual demand is made. To fail to have it would be to fail in our duty to the community and to ourselves. The profession which deals bravely and boldly with life and death will not fail in this.

DONALD STUBBS, M.D.
President, Medical Service of the District of Columbia; Chairman, Government Relations Committee of Blue Shield Commission

DIABETES DETECTION PROGRAM—1955

During the 1954 Diabetes Detection Program experience with the Dreypak technic demonstrated that this device for mailing dried urine specimens provides a workable and efficient method of mass screening for diabetes. This year, during Diabetes Week—November 13 to 19—approximately 90,000 Dreypaks will be made available to the public, to be obtained free upon request at the drugstores (through the unstinted coöperation of the D. C. Pharmaceutical Association).

With the endorsement of the Medical Society, the Diabetes Week publicity will again indicate to the community that free urine tests for sugar may be had upon request in the office of the physician. As in previous years, materials for urine sugar testing will be distributed without cost to all physicians upon request.

Obtained on loan from the U. S. Public Health Service, the Clinitron, an instrument for rapid determination of screening blood sugars, will be used by the D. C. Health Department during Diabetes Week to test all bloods submitted by local physicians. Specially processed and packaged tubes for the preservation and transportation of blood specimens for Clinitron assay are being provided to all physicians requesting them. The results of these blood sugar tests will be reported directly to the physicians submitting them.

In each instance in which positive urine test for sugar is found, the individual, as well as the physician named by him on the original mailing device, is notified of this finding. The patient will be offered a free follow-up blood sugar test, the result of which will be sent to his physician.

Previous experience with mass urine and blood testing has demonstrated that positive tests are obtained in approximately 8 per cent of all urines and 3 per cent of all bloods (considering a screening blood sugar level of 130 mgm. per cent or more as positive). Careful follow-up of such "positives" can be expected to yield a diagnosis of diabetes in about 8 per cent of individuals with positive urine tests and perhaps 50 per cent of those with positive blood tests.

Regardless of whether diabetes screening tests are carried out through a public facility or in the doctor's office, the ultimate diagnosis of diabetes rests in the hands of the physician. He will have to evaluate the role of possible liver disease, hyperthyroidism, infections, or other diseases as a source of disturbed carbohydrate metabolism.

Although the diagnosis of diabetes cannot rest alone on the finding of sugar in the urine, this finding should never be disregarded. A fasting venous blood sugar of over 130 (Folin-Wu) or over 110 (true glucose value) is strongly suggestive of diabetes. However, the fasting blood sugar is often misleadingly normal, even in frank diabetics, and should not be accepted alone to rule out diabetes.

The patient will frequently be spared the expense and trouble of a glucose tolerance test if a postprandial blood glucose determination is made. The Somogyi method or other method for true glucose value should be used whenever possible, and a blood specimen obtained 1½ to 2 hours after a meal containing a large amount of carbohydrate. Under these circumstances, a venous true blood glucose of over 150, or capillary true blood glucose of over 200, indicates the presence of diabetes with a high degree of probability. In all borderline cases a standard glucose tolerance test is indicated. If the fasting venous true blood sugar is above 120 and the 2-hour level above 140, the diagnosis of diabetes can be made.

If such follow-up fails to demonstrate the presence of diabetes, those individuals who have shown glycosuria on screening examination should be observed at least annually for the possible development of diabetes in the future.

Only intensive follow-up of this nature will lead us to early diagnosis in cases of mild diabetes and to the swift employment of such means as we have to combat the deleterious effects of the diabetic syndromes on the health and lives of the people in the community we serve.

Parenthetically, there are very probably 10 or 20 among us Washington physicians with unsuspected diabetes. (Physician, test thyself!)

It is my belief that voluntary diabetes detection and education programs of this nature are unparalleled by any other effort as a demonstration to the public of the community health-mindedness of our private system of medicine. The coöperation of every practicing physician is earnestly solicited.

Samuel D. Loube, M.D.
President, Diabetes Association of the District of Columbia; Chairman, 1955 Diabetes Detection Program in the District of Columbia

PHYSICIANS, SCIENTISTS AND MEDICAL NEWS

The panel which discussed "What Is Legitimate Medical News?"* seemed to me to overlook an aspect of this problem which is of fundamental importance. The panel failed to recognize that "medical news" covers three widely divergent kinds of news:

1. That relating to practicing physicians and their patients.
2. That relating to investigators (M.D. or otherwise) in basic sciences, who though often administratively attached to medical schools are not, in functional terms, an organic part of the applied science of medicine.
3. That relating to the work of physicians engaged in clinical research.

The attitudes of these three kinds of medical workers toward the question of what constitutes legitimate medical news differ widely. These differences exist not because some people are nice, modest characters, while others are just naturally publicity hounds; the differences exist because some kinds of businesses must have publicity to survive and to perform their functions while other kinds of business need little if any publicity. I will try to show later why basic scientific research falls into the first category.

One of the most valuable assets of the practicing physician is the confidential and privileged nature of the doctor-patient relationship. Any activity which suggests to a patient that his doctor is unduly interested in publicity tends to damage that relationship. Of course, there are other good business and professional reasons for the attitude of the medical profession toward publicity. I find it easier to believe that considerations of this kind underly our attitudes (as physicians) toward publicity rather than to believe that physicians are by nature more modest and self-effacing than the rest of mankind. In short, it is just plain good business for practicing physicians to be very cautious about giving out news. Reporters will find practicing physicians easier to deal with if they recognize this fact and avoid writing stories which endanger the delicate and valuable relationships between doctors and patients, either individually or collectively.

In contrast to the practicing physician stands the basic research scientist. His business is discovery and one of his principal rewards lies in being first to announce a new discovery. Furthermore, his success in obtaining the continuing flow of grants by which his business is financed depends on his public relations with granting agencies whose success in raising (publicly donated) funds also depends on publicity in large degree. Careful scientists do not "stick their necks out" by announcing discoveries of which they are not reasonably certain. On the other hand, we know there is no final, perfect truth in science, only approximate, relative truth. The scientist who before publishing his results insisted on some impossible standard of scientific perfection would probably never be first to announce anything. Especially would this be so if he were to adopt the policy that he would publish nothing until the idea had been developed to the point where it was medically useful. Further than this, his findings are often of interest to many people not necessarily concerning themselves with medical problems, and newspapers and other lay publications are an important means of cross-communication between different scientific disciplines. For all these reasons it seems apparent to me that the attitude of the basic research scientist toward "legitimate medical news" is quite properly different from that of the practicing physician.

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* M. Ann. District of Columbia, 1955, 24, 417.

The clinical investigator is probably in the most difficult position of the three. As a practicing physician he has one standard to consider and as an investigator he also must consider the other standard. Although I have no examples to illustrate the point, I can see potentialities for dilemmas which should turn all clinical investigators ultimately into philosophers.

JOSEPH W. STILL, M.D.
Assistant Professor of Physiology,
George Washington University
School of Medicine

ALBERT SCHWEITZER, M.D.

During this eightieth year of his life, people throughout the world are paying homage to Dr. Albert Schweitzer, humanitarian, philosopher, musician, theologian, and, above all, physician. During its ANNUAL SCIENTIFIC ASSEMBLY, in an exhibit of the work of this leading citizen of our times, our Medical Society joined in the celebration of his achievements.

Dr. Schweitzer began his work as a theologian and soon became a leader in the field of ethics. At the early age of 30, he decided to put into practice the concept of an ethical life which he had developed and to give up the theological positions and honors which his work had brought him. He started the study of medicine, which was to lead him to Lambarene in Africa and to the establishment of a missionary hospital under the most primitive conditions.

It is an honor to the profession of medicine that Albert Schweitzer could find in its discipline the practical expression of the ethic which he calls "Reverence for Life," an ethic of "boundless responsibilities and duties." Stated in Dr. Schweitzer's own words, "The ethic . . . considers good only the maintenance and furtherance of life. It brands as evil all that destroys and hurts life, no matter what the circumstances may be. It keeps no store of appropriate compromises between ethics and necessity ready for use. The absolute ethic of reverence for life brings a man to terms with reality. It does not rid him of conflicts, but it forces him to decide for himself in every case how far he can remain ethical and how far he must yield to the necessity of destroying and harming life and suffer the ensuing guilt. . . . No one else can decide for him in any case where the extreme limit of possibility lies in his persistence in preserving and promoting life. He, alone, can make this decision, being guided in it by a feeling of the most elevated responsibility toward other life."

As a physician, Dr. Schweitzer has practiced as a living example of his preaching. His now famed hospital for lepers and other patients was built and is run with his own hands and by his own efforts. Still in one of the most primitive areas in the world, the hospital is the scene of the daily struggle of a doctor for his patients. There the doctor ministers not only to their medical needs, but to their spiritual, educational and social needs as well.

In spite of the tremendous work load of medical care he carries, Dr. Schweitzer has found the time to write many modern classics of history and theology, and has found time to devote himself to his lifelong love, the study of the organ and of organ music. He is the author of the definitive study of the music of Bach.

It is recognition of the finest of which our profession of medicine is capable to have the outstanding general practitioner of our times receive, as Dr. Schweitzer has, the Nobel Prize for Peace among his many honors. It is only fitting that we pause to honor our fellow physician, for in him we honor the guiding ethical principles of our chosen work and, indeed, the hopes of man.

DANIEL L. WEISS, M.D.

In and Out of Focus

BY THE OBSERVER

Assembly's Silver Anniversary

The ANNUAL SCIENTIFIC ASSEMBLY is the high point in every Medical Society President's term of office. Strenuous though he undoubtedly finds the day and night schedule, the ASSEMBLY is a gala occasion in which he is the central figure. It is the one time in the organization year when he rides the crest with few serious problems to disturb him.

Dr. W. Ross Morris had the good fortune to be President on the occasion of the ASSEMBLY's Silver Anniversary. No effort or expense was spared to make this meeting the best to date. If comments heard before, during, and after the meeting can be accepted at their full value, the Committee on Arrangements was entirely successful in attaining its objective.

The Committee's efforts would have been of little moment, however, if physicians had not shown their interest by attending. It is a pleasure to report that on this score, too, the Committee succeeded. Below is a breakdown of the registration:

Members	982
Guest Physicians	576
Interns	60
Medical Students	407
Nurses	160
Medical and X-ray Technicians	63
Technical Exhibitors	289
Miscellaneous	392
Total	2,929

The heart of the ASSEMBLY is, of course, its scientific program. This includes not only papers, panel discussions, clinico-pathological conferences, but scientific exhibits, and motion pictures. Where the speakers were concerned, the best talent available had been obtained to present subjects in which they were considered outstanding authorities. Scientific exhibits, more numerous than in previous years, were the source of much favorable comment, as were the motion pictures which this year had been carefully screened by the Motion Picture Committee long in advance of the ASSEMBLY.

A feature of the ASSEMBLY which attracts wide public attention is the conferring of awards upon both physicians and laymen. Special recognition was given this year to Dr. Charles Stanley White, founder of the ASSEMBLY. He was presented with a silver tray as a memento of the ASSEMBLY's 25th birthday (see page 605). Drs. William Earl Clark and Addison M. Duval, well known to the Washington medical profession, were the recipients of Certificates for Meritorious Service (see pages 607–8). The John Benjamin Nichols Award was presented to Mrs. Henry Grattan Doyle, long one of the community's outstanding civic leaders (see page 609).

On Monday night, October 10, Dr. Francis M. Forster, Dean of Georgetown University School of Medicine, received a special Certificate of Merit in recognition of the School's pioneer efforts in TV. The presentation was made by the Society's President, Dr. Morris, on behalf of the American Medical Association and Ciba Pharmaceutical Products, Inc. (see page 624). Dr. Forster was also the recipient of a Citation for Outstanding Service from the President's Committee on Employment of the Physically Handicapped. The citation states that the award is "in recognition of outstanding efforts extended in promoting equal opportunity in employment for the physically handicapped."

Awards were also given scientific exhibitors. These were as follows:

First Award: Dr. Arthur A. Morris—"Results in Surgical Treatment of Psychomotor Epilepsy"

Second Award: Dr. Benjamin Manchester, George Washington University School of Medicine—"Anticoagulant Therapy Controlled by a Simple Blood Prothrombin Test"

Third Award: Cdr. E. R. King, MC, USN; Lt. T. G. Balbus, MC, USNR; and Lt. W. I. Freud, MC, USNR, U. S. Naval Hospital, National Naval Medical Center—"Clinical Diagnostic Studies Utilizing Radioactive Isotopes"

Certificates of Merit were conferred upon the following exhibitors:

Drs. O. Hugh Fulcher and Othmar Solnitzky, Georgetown University School of Medicine—"Problems and Assets Resulting from the Cerebro-spinal Fluid Circulation"

Drs. Allan M. McKelvie, Alfred E. Jackson, and Joseph O. Romness—"Two Simple Tests for Early Recognition of Hip and Foot Deformities"

Drs. Bernard H. Ostrow, John M. Evans, Daniel Steinberg, and Howard Ticktin—"Glutamic-Oxaloacetic Transaminase (G.O.T.) in Myocardial Infarction."

No ASSEMBLY would be complete without social events. As in past years, there were the luncheons and dinners sponsored by the Society and the alumni groups of Washington's medical schools.

DR. WHITE RECOGNIZED AS FOUNDER OF ASSEMBLY

DR. CHARLES STANLEY WHITE (left) expresses his pleasure at receiving a silver tray from President Morris at the Society's Annual Banquet at the Hotel Statler, October 12. The inscribed tray was given Dr. White as a memento of the ASSEMBLY's Silver Anniversary. Dr. White initiated the Society's first annual meeting in 1929.

The Annual Dinner for the Doctors' Office Staffs has become a permanent feature of the ASSEMBLY. The audience made it clear that they were particularly well pleased with the speaker, Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital.

The Silver Anniversary Dinner, except for the presentation of awards, was given over to an evening of entertainment. The Doctors Symphony Orchestra, under the direction of Mr. Richard Dirksen, was enthusiastically applauded at the conclusion of a surprisingly smooth rendition of four classical selections. In their performance of "Knot as a Strangler," a cleverly written burlesque on the "mello-draymer," the

MEDICAL BUREAU
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CAMERA HIGHLIGHTS FROM THE 25TH ANNUAL SCIENTIFIC ASSEMBLY

Above are some of the scenes captured by the photographer during the Society's ANNUAL SCIENTIFIC ASSEMBLY at the Hotel Statler, October 10, 11 and 12: (1) DR. HOWARD MITCHELL, Director of the National Symphony Orchestra, addressing the doctors at the George Washington University Luncheon on "Music and Medicine"; (2) DR. WINFRED OVERHOLSER, in a jovial moment, speaking to members of the doctors' office staff at the Secretaries' Dinner; (3) THE HONORABLE ROSWELL B. PERKINS, Assistant Secretary of the Department of Health, Education and Welfare, discusses "The Administration's Health Activities" at the luncheon meeting of the Georgetown University Medical Alumni Association;

(Continued on page 607)

Medico Players revealed unsuspected dramatic talents which surprised and pleased the audience.

A successful Assembly depends upon no single individual because it requires team effort. However, the largest share of credit must go to the General Chairman, Dr. Alfred A. J. Den. Appointed to this post last year, he is already a familar figure to members of the Medical Society. His unusual abilities in the organization field have been demonstrated time and again in recent months.

Of invaluable assistance to Dr. Den were several committees with the following chairmen: Dr. Oscar B. Hunter, Jr., Program; Dr. Marcel J. Foret, Scientific Exhibits; Dr. Ralph D. Whitley, Motion Pictures; Dr. Earle B. Thompson, Social Affairs; Dr. Josephine E. Renshaw, Attendance; Dr. Karl C. Corley, Finance; Dr. Mary K. Sartwell, Women's Activities.

A special word of commendation is due Mrs. Lawrence A. Rapee, the very capable and attractive President of the Woman's Auxiliary. She and her co-workers responded to all requests for assistance with an enthusiasm and devotion which are deserving of the highest commendation.

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"You're In... Stay In..."

Opening-day addresses to incoming freshmen classes at medical schools vary somewhat but usually contain a bit of medical history, the right proportion of inspiration, some fatherly advice, and a sprinkling of humor or what passes for it. The effectiveness of this formula depends a great deal on the speaker's personality, intellectual equipment, and speaking ability.

DR. CLARK CITED BY MEDICAL SOCIETY

Dr. William Earl Clark (left) has just received the Certificate for Meritorious Service from President Morris at the Society's Annual Banquet, October 12. The certificate was presented to Dr. Clark, "distinguished doctor of medicine, for his ability to recognize unusual talent among his younger colleagues and to inspire them by precept and guidance to seek medical knowledge diligently and to adhere to the highest ideals of their profession. As President of the Medical Society of the District of Columbia in 1945-46, he gave the Society wise, courageous and gracious leadership."

An unusually fine choice for the Opening Assembly of its 132nd Academic Session was made this year by the George Washington University School of Medicine when it obtained

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(*Continued from page 606*)

(4) members of the Medical Society's office staff manning the Registration Section; (5) Dr. Alfred A. J. Den (center), General Chairman of the Committee on Arrangements for the Assembly, flanked by Dr. Marcel M. Foret (left), Chairman of the Scientific Exhibit, and Dr. Ralph D. Whitley, Chairman of the Motion Pictures. In the circle is Dr. Oscar B. Hunter, Jr., who was responsible for the excellent program throughout the 3 days; (6) the Albert Schweitzer Exhibit, sponsored by the Armed Forces Institute of Pathology. Dr. Lalla Iversen, Chief of the Section on Geographical Pathology, AFIP, has just unveiled the Schweitzer bust, which was sculptured by Master Sergeant Anthony Cortizas, U. S. A.;

(7) messages for doctors came into the Medical Bureau and were relayed to them by Mrs. Elizabeth M. Lenderman and Miss Mary McCambridge. Theodore Wiprud, the Society's Secretary, is standing at the left; (8) Doctors Orchestra in its debut performance at the banquet, October 12, with Richard Dirksen directing; (9) and (10) scientific exhibits. Dr. John P. Haberlin (left) is deeply engrossed in the study of one of them; (11) a corridor view of some of the excellent technical exhibits which displayed new drugs and equipment.

CERTIFICATE OF MERIT AWARDED DR. DUVAL

Dr. Addison M. Duval (left) appears pleased at receiving the Certificate for Meritorious Service from President Morris at the Annual Banquet of the Society at the Hotel Statler, October 12. The certificate was presented to Dr. Duval in recognition of "his outstanding contributions to the health and welfare of the children of the District of Columbia. Under his guidance the first Kiwanis Clinic for emotionally disturbed children was established in Washington in 1948. With conspicuous success he has since sought and obtained professional and public support for additional psychiatric services in the public schools. The community owes this civic-minded humanitarian a deep debt of gratitude."

Dr. R. Keith Cannon (Ph.D.), Chairman of the Division of Medical Sciences, National Academy of Sciences, National Research Council, as speaker. Seldom has such close attention been given to what all agreed was a lively and interesting talk.

In his introductory remarks Dr. Cannon, who for several years was Assistant Director of New York University Bellevue Medical Center, made this pertinent observation: "The important thing is that you're in and I suppose the next important thing is that you should stay in the race. . . . And, I might add, one further important thing is that it is worth while taking some pains to see that the race does not degenerate into a rat race. . . ."

How can this be avoided? "One [way] is the cultivation of horse sense. The second is a zest for the road; and the third, my real thesis, a feeling for style.

"Horse sense, somebody said, is the sense that horses have not to bet on men. It is probably a pretty risky game but medical schools are in the business of betting on men. . . .

"Now what do I mean by this horse sense? . . . Well, I can say what I don't mean by horse sense more readily. What I don't mean is booklearning, and I do not mean the minutiae of facts that you cram for examinations, nor standard procedures that you practice in laboratories. I don't even mean the orthodoxies of diagnosis and therapy that you will pick up at the bedside. Horse sense has got nothing to do with a collection of facts, and I would make bold to say—and I say this because sometimes we teachers are inclined to say, oh, we don't teach facts, we teach general principles—horse sense has got nothing to do with the acquisition even of general principles.

"You remember the message that Oliver Wendell Holmes wrote to a friend of his: 'Man's chief end,' he wrote, 'is to frame general propositions, and general propositions are not worth a damn.' I think he meant by that that general propositions are not worth a damn unless you put them to work. And perhaps what I'm trying to say about horse sense is that it's the faculty of putting what you happen to know to work. It's the faculty of being in the saddle of what knowledge you do possess. It's the faculty indeed of being master of any steed that you choose to ride."

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"But that's not enough. You're going to tire easily in medical school unless there is a zest for the road. We generally paint the pursuit of knowledge as a cold, objective, dispassionate affair, and so it is from the outside. But I would tell you, and your teachers will all tell you, that inside the explorer it must be a passionate adventure and it must engage your heart as well as your head, because if it does not then your race is liable to degenerate into a rat race.

"And so horse sense and a zest for the road will carry you far, but I think you ought to have pride in your journey. You will need one thing more and this is my main thesis. You must seek out a feeling for style. . . ."

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"What I'm really concerned with this morning is style in performance, style in the execution of a skill. In the command of craftsmanship, one first arrives at a conscious mastery of one's skills, but style is more than this. Style, I think, is the thing that happens when conscious mastery passes into the unconscious and becomes the very part of one. Style, someone has said, is what remains after you've forgotten all that you learned, and again I would put it this way: That style is perhaps the thing that distinguishes the professional from the amateur, the artist from the artisan.

"During your progress through school you will see the skilled diagnostician arriving at a diagnosis without being able to tell you exactly how he got there. You will see the internist timing his therapy to the response of the patient with an intuition that transcends reason. And you will see the surgeon controlling the hazards of the knife with a sixth sense that neither he nor you can explain clearly. These men have style, and the intriguing thing about style is that it combines an air of inevitability with an atmosphere of surprise."

Dr. Cannon summed up his advice to the students as follows:

"Don't let the orthodoxies and the traditions constrain your wonderings. You remember the well-known G. K. Chesterton phrase: 'The world will never lack for wonders but man may lack for wonder.' Don't let anyone constrain your wonderings, and if you're going to wonder, you've got to wander and you're going to wander off the beaten track. Remember also that most new ideas—really new ideas—have a certain element of foolishness about them when they are first come upon. And history teaches that many of the great human achievements have been made by those who were alert to the unexpected and were willing to follow unpopular ideas. And this is the phrase I'm very fond of: Man rose from the apes because he was always monkeying around."

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The Telephone Recitalist

On the last day of the recent Annual Scientific Assembly a physician whom your Observer has known for a long time spoke to him about the Third Annual Dinner for Doctors' Office Staffs. Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, had made a fine impression on his audience, he said, not only because of his splendid talk but because he did not instruct his listeners in elementary office routine. In this connection he mentioned the use of the telephone.

MRS. DOYLE RECEIVES THE NICHOLS AWARD

Mrs. Henry Grattan Doyle is examining the John Benjamin Nichols Award which was presented her by President Morris of the District Medical Society for her "contributions in the health field and distinguished service to the people of the District of Columbia." The presentation was made at the Society's Annual Luncheon at the Hotel Statler, October 10.

Curious, your Observer pursued the subject. Did he not think that good telephone manners were very important? Did they not create good or ill will where patients were concerned?

"Yes," the doctor said, "I agree that good telephone manners are important; however, I wish it were possible to impress this upon some of our patients—not a large number, mind you, but enough to give us many headaches.

"Granted that the telephone has made a great contribution to the efficiency of conducting a medical practice; it has often been a nightmare to the weary doctor. Sometimes it seems that people have a phobia for marathon telephone conversations. What I call the telephone recitalist reviews and repeats ad infinitum. He is next to impossible to stop. It is enough to give one the jitters—which it often does. Small wonder that doctors are forced to go to extremes to avoid being tied up on the telephone most of their working days.

"Now, there are degrees of telephone recitalists. They are not all crackpots, by any means. They are fine people whom the doctor talks with frequently. But in varying degrees they have never learned to say a thing once; they say it twice, sometimes three or more times, unnecessarily prolonging conversations that could be both friendly and brief. Someday an Emily Post may write a book on telephone etiquette which will have a big enough audience to do some good.

"We doctors would undoubtedly benefit by reading it. Come to think of it, we are not exactly inarticulate."

T. W.

WOMAN'S AUXILIARY NOTES

The Woman's Auxiliary to the Medical Society of the District of Columbia held its first regular meeting on Wednesday, October 12, in the auditorium of the Medical Society Building. Following the business meeting, Dr. Wm. Ross Morris, President of the Medical Society, greeted the more than 160 Auxiliary members present. He complimented the Auxiliary on its activities, its interest in maintaining the library, and was particularly praiseworthy of our endeavors in connection with the Nursing Scholarship Fund. Dr. Morris told us that the D. C. Medical Society, with 2,050 members on its roster, ranks among the largest of the state medical societies and, he pointed out, such a large group needs the continued and extended assistance of its Medical Auxiliary. In this connection he asked that we continue our assistance with the Annual Scientific Assembly, the Secretaries' Dinner, and the entertainment program.

Dr. Morris suggested that we could be of further help to the Medical Society by forming a special committee to work with its House Committee toward better maintenance of the entire building. He recommended that special committees be formed to work with the Medical Society's Speakers Bureau for lay groups; with Dr. Maksim in the dissemination of correct medical information; with Dr. Todd in scheduling the school health examinations; and another to work with the Medical Society's indoctrination luncheons for its new members.

The stage in the auditorium was attractively decorated with colorful autumn leaves and chrysanthemums to serve as a background for the fashion show immediately following Dr. Morris' address. Our Program Chairman, Mrs. Howard A. Donald, introduced Miss Sue Boteler of Frank R. Jelleff's, Inc., who commentated the show. The beautiful clothes were modeled by the following Auxiliary members: Mmes. Joseph Bailey, William F. Burdick, James W. Choate, John R. Ewan, Ernest E. Hadley, J. Blaine Harrell, Hugh W. Irey, Julius Radice, John A. Reisinger, Melchior Savarese, and Edward C. Wilson, Jr. Miss Mary Ellen Quayle, daughter of Dr. and Mrs. Edgar E. Quayle, was our teen-size model. Our lovely models conducted themselves with sufficient professional skill to cause complimentary praise from one of the newspaper fashion reporters present. Several lovely door prizes added to the excitement and fun.

Since it will celebrate its thirtieth anniversary this year, the Auxiliary invited the charter members to be its honored guests at this meeting. Our President introduced the 10 charter members present. Following the program a delicious buffet luncheon was served in the library. Mrs. James P. Murphy and her House Committee capably handled the record attendance with skill and ease.

Tuesday evening, October 18, will always be a night to remember. On this memorable evening the National Theatre was "the stage" for our first theater benefit to aid our Nursing Scholarship Fund and the American Medical Educational Fund. This was an outstanding success financially as well as socially. Miss Carol Channing was hilariously funny in her new show, "The Vamp," and those who could not be present missed a delightful evening and a wonderful show. The various committees and the Auxiliary members who worked so diligently toward the success of this affair deserve very special praise. Because of their untiring efforts the Auxiliary has realized a net profit of about $1,200 for the Nursing Scholarship Fund and the American Medical Educational Fund. We are particularly grateful to Mr. Scott Kirkpatrick, Manager of the National Theatre, and his entire staff for their coöperation and helpfulness in every possible way toward making this a successful venture. Thanks are also due our doctors, their wives and friends for supporting this

(*Continued on page 634*)

THE PHYSICIAN IN HEALTH EDUCATION*

For the Information and Guidance of Members of the Medical Society of the District of Columbia

It is no news to doctors that public interest in matters pertaining to health is at an all-time high. They have been only too conscious of the flood of so-called medical articles appearing in the daily press and popular magazines and the daily medical fare served radio listeners and television viewers. Much of what physicians have seen and heard they have approved. On the other hand, doctors have found most distasteful efforts to sensationalize or oversentimentalize medical achievements.

Doctors who have given this matter serious thought agree that widespread public interest is inevitable in the light of the rapid strides which medicine has made in recent years. Editors and other purveyors of mass health information have not been slow to recognize this fact. For example, in addressing a group of doctors last year, Mr. Steven M. Spencer, Associate Editor of the *Saturday Evening Post*, said, "Our own magazine, with a circulation of 4½ to 5 million copies per week, publishes 20 to 30 medical articles a year. And our readership surveys reveal that these articles, when scored on reader interest, consistently stand at or near the top of the list of subject categories."

What applies to popular magazines is equally applicable to the daily press, television and the radio.

Medical societies play a very important role in health education. In fact, most societies now devote a substantial portion of their activities and funds to the dissemination of reliable health information. This guide is prepared primarily for members of the Medical Society of the District of Columbia who participate in this effort.

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Not so long ago, physicians who engaged in health education frequently discovered to their embarrassment that their activities were in conflict with the Principles of Medical Ethics of the American Medical Association, which then cautioned that a member of a medical soceity "should request the approval" of an officer or a committee before making public statements on a medical subject. Recently, the Principles have been liberalized and on this point now read:

> "The medical profession considers it ethical for a physician to meet the request of a component or constituent medical society to write, act or speak for general readers or audiences. On the other hand, it may often happen that the representatives of popular news media are the first to perceive the adaptability of medical material for presentation to the public. In such a situation the physician may be asked to release to the public some information, exhibit, drawing or photograph. Refusal to release this material may be considered a refusal to perform a public service, yet compliance may bring the charge of self-seeking or solicitation.
>
> "An ethical physician may provide appropriate information regarding important medical and public health matters which have been discussed during open medical meetings or in technical papers which have been published . . . , but he should *seek the guidance of appropriate officials and designated spokesmen of component or constituent medical societies.* Spokesmen should be empowered to give prompt and authoritative replies and a list should be issued which identifies them and discloses the manner in which they may be reached. . .
>
> "Scientific articles written concerning hospitals, clinics or laboratories which portray clinical facts and technics and which display appropriate illustrations may well have the commendable effect of inspiring public confidence in the procedure described. Articles should be prepared authoritatively and should utilize information supplied by the physician or physicians in charge with the sanction of appropriate associates.
>
> "When any sort of medical information is released to the public, the promise of radical cures or boasting of cures or of extraordinary skill or success is unethical. . . ."

As the italicized portion of the above quotation makes clear, it is no longer mandatory for a physician to seek approval of his medical society, but rather that he avail himself of its guidance in matters pertaining to health education.

Long before this change in the Principles was adopted by the American Medical Association's House of Delegates, this was the official position of the Medical Society of the District of Columbia. At intervals, each member has been sent a copy of General Recommendations Governing Members of the Society in Their Relations with the Public and with Lay Publications adopted by the Society. These Recommendations are amplified in this guide.

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* Prepared under the direction of the Committee on Public Information of The Medical Society of the District of Columbia.

Goals.—The primary purpose of any health program is to impart information which will aid in the maintenance and improvement of the health of the people. Not all medical subjects are of legitimate public interest nor is their discussion of value to lay individuals. Some are too technical and cannot be understood by nonmedical persons. Others had best not be discussed because the public would not benefit by either their discussion or portrayal.

Where it has been ascertained that better knowledge of a health subject would advance the public health and stimulate more intelligent coöperation on the part of patients, consideration should be given as to how best to impart this information. Obviously, it must be intelligible to the audience. Medical words common enough to the physician may mean little or nothing to a layman. Therefore, it is important that the physician strive for simplicity without being condescending, accuracy without being pedantic, and informality without being trite.

Putting it another way, the first goal to be sought is a health education program which on the basis of its content and presentation contributes to intelligent understanding.

Press.—The apprehension of many physicians when dealing with newspaper reporters is frequently based on the fear of violating medical ethics or being subjected to the caustic criticism of their fellow physicians that they are "advertisers." This feeling is not justified providing the physician is properly modest, understands some of the mechanics of news gathering, and is not overly sensitive to the small talk of his colleagues.

In his relations with the press, the physician should remember that when the reporter is given an assignment he is expected to carry it out to the best of his ability. The reporter's task is to obtain the facts on which to write a "story" that is correct, informative and readable.

The experienced reporter is well aware that physicians are reluctant to be interviewed, especially when they suspect that statements will be attributed to them whether they wish it or not. The wary physician need not be concerned on this score because newspapers too have their ethics which reporters with few exceptions observe.

If the physician does not wish to be quoted or his name to appear, all he has to do is inform the reporter in advance that he will talk to him with this understanding. This is known as providing background information. If under these circumstances the reporter chooses to go on with the interview, the physician can be assured that his confidence will not be violated. However, it will not do for him to make this request at the end of the interview. Then it is too late. An understanding must be reached in advance.

All newspapers would like to use names because they insist names make news. Mr. Spencer puts it this way: "Names and pictures of physicians are logical parts of the story. Neither we nor our readers regard them as advertising. The story would simply be incomplete without them."

When is a physician justified in having his name appear and in being quoted? Usually when he holds an official position in a medical organization or institution, a voluntary health organization, or a branch of the Government. In these circumstances it may be one of his functions to make statements to the press.

In some instances the physician is particularly well qualified to comment on a health subject of current interest. In this event he should request that no reference be made to his special field and that statements be attributed to him as a physician.

Some years ago the Medical Society of the District of Columbia entered into an arrangement with Washington newspapers in which all parties agreed to coöperate to their mutual advantage. The Society was to provide newspapers with a panel of physicians engaged in the various specialties and general practice together with their addresses and telephone numbers. These physicians, it was understood, would verify the accuracy of medical news reports originating locally and nationally relating to their respective fields.

The name of the physician interviewed was not to be used unless it was agreeable with him. In this event it was to be stated that he was a Society spokesman with no mention made of the type of practice in which he was engaged. If he was a member of a medical school faculty or an official of a hospital staff, his title should be used.

This plan has worked very satisfactorily for a number of years and is still in effect.

Radio and Television.—The radio has for many years been an effective communication medium in health education. It now has a keen competitor in television, but the radio still holds the edge in the size of its audience. However, because of its audio-visual character, television will become an increasingly popular means of conveying health information.

Both of these media have been widely used by medical organizations, whose programs have in recent years shown much improvement in quality and content. Commercial companies, largely the drug manufacturers, have, with the coöperation of the medical profession, invaded this field.

The various types of radio and television programs include the health talk, the interview, the round table or panel discussion, the forum, and the dramatic presentation. Most popular at the moment is the panel discussion, perhaps because of its informality. Dramatic presentations also command a large audience. However, they are costly and difficult to do well without professional talent and are therefore beyond the financial resources of most medical organizations.

Interviews can be and often are effective if individuals participating are well informed and sufficiently expert to carry on an informal discussion. Least popular of all are talks, especially of the formal type. Their effectiveness depends to a considerable extent on the personality of the speaker, his manner, and his delivery.

If the doctor has been invited to participate in a panel discussion or interview, it is important that he consider the program's sponsor, the propriety of the subject matter, and the manner of its presentation. When a talk is to be given, the same factors are involved except that the physician is free to determine its content.

The question will arise as to the use of names of the participating physicians. No radio or television presentation, one medical society informs its members, can succeed without the doctor being identified by name "because people will not take authoritative advice from a nonentity." Attention is called to the previously quoted revised Principles of Medical Ethics in reference to health education. Emphasized, too, is the fact that appointment of physicians to represent the medical society safeguards any program. Under the society's auspices everyone gets equal and proper publicity.

A physician should be identified by name only, unless he is a public official, a member of a medical school faculty, an official of a hospital staff, or an officer of a medical society, a voluntary health organization or a medical institution. To be avoided is the use of such terms as "authority," "expert," and "eminent."

It should be obvious from the above that the physician contemplating an appearance on radio or television can benefit from the experience of his medical organization with mass communication media. The Medical Society of the District of Columbia does not desire to censor statements of its members or to restrict their activities in health education; rather, it wishes to stimulate further activity in this field, help physicians avoid pitfalls, and protect the public against misinformation, intentional or otherwise.

Writing for the Laity.—Most of the so-called medical articles which appear in the daily press and magazines are written by laymen. Not infrequently the doctor is called upon to write an article for lay consumption. In this event the following suggestions based on the experience of a number of physician-writers will be helpful.

In the beginning the doctor must decide the propriety of his writing the article requested, the need for it from the standpoint of his prospective audience, and whether its publication will be beneficial to his readers. As to the first, propriety is not only a matter of ethics but of good taste. These are not necessarily synonymous. The doctor violates the ethics of his profession if he writes an article for the purpose of obtaining patients. He is guilty of bad taste if he places too much emphasis on his own achievements. "Self laudations," the Principles state, "defy the traditions and lower the moral standard of the medical profession; they are an infraction of good taste and are disapproved."

In view of the fine distinguishing line between ethics and propriety, it is suggested that the member "clear" his literary efforts in health education with the Society's Committee on Public Information. If this is his decision, he should forward the manuscript to the Secretary of the Society, who will see to it that it receives prompt attention from the Committee.

Another factor to be kept in mind by the physician-author is the type of audience to which his article is directed. In writing for some groups he can be more technical than he is for others. Usually he would do well to avoid medical terminology and confine himself to simple statements of fact in nontechnical terms.

A health article that meets the highest standards is factually correct, helpfully informative, interestingly written, and readily understood by the audience to which it is addressed. Although he may fall short on literary skill, no conscientious physician-author is guilty of catering to morbid curiosity, inspiring overoptimism or conveying inaccurate information.

Health Forums.—This type of program is usually sponsored by medical societies in coöperation with a newspaper, the local Health Department, or voluntary health agencies. They have proved an excellent means of conveying helpful medical information to the average citizen. In these circumstances the physician need have no concern about sponsorship. However, he should ascertain the scope of the discussion and whether he feels equipped to participate. Most health forums deal with a single subject, such as diabetes, heart disease, tuberculosis, and mental health. The material may be presented by an individual doctor or by a panel of physicians, with time allowed for questions.

It should be emphasized that a physician taking part in this type of program should be thoroughly familiar with his subject because the question period is one which will test his familiarity with the topic being discussed.

Public Speaking.—The doctor is called upon more frequently to speak to small lay groups than to participate in any other way in the health education program. His effectiveness will depend upon many factors, the most important being that he is well prepared. This does not mean that he needs to "prepare a paper"—in fact, quite the contrary, since he can hold his audience more effectively if his style is informal and he speaks from notes or memory. This requires practice, but the effort, if persisted in, will bring satisfying results.

The doctor should keep in mind that he is at his best when the audience identifies itself with him, in other words, when he illustrates his message with experiences familiar to the majority of his audience.

A word may be said about the question-and-answer period which is now popular with most audiences. As previously mentioned, the speaker who is successful in coping with this part of the program must be sufficiently agile and well informed to deal adequately with any question. Some speakers may prefer to have questions submitted in advance.

It is suggested that when the physician accepts an invitation to appear before lay audiences he should notify the Secretary of the Society to this effect and submit an outline of what he proposes to say. If his talk is in manuscript form, he should forward a copy to the Secretary for review by the Committee on Public Information.

This, incidentally, is a requirement of the Society's Speakers Bureau, which provides speakers for lay audiences on a variety of health subjects. The Bureau is always in need of volunteers. Those physicians who wish to participate in the Bureau should notify the Secretary of the Society. Physicians well equipped to aid in this phase of the Society's program can make a real contribution to the health of the community.

Conclusion

The pitfalls to be avoided by physicians who participate in health education may profitably be repeated to emphasize their importance:

Never talk down to an audience.

Avoid anything suggestive of self-laudation.

Avoid dogmatism and pontification.

Avoid medical terminology where possible.

Do not deal in personalities or succumb to the temptation of ill-considered, offhand remarks.

Observance of the following suggestions is recommended:

Keep in mind the kind of audience being addressed and the object of the presentation.

Be certain of the propriety of the sponsorship of a health education program.

Keep the discussion on a high but informal level.

Answer questions frankly, and do not be afraid to say, "I don't know."

If required, seek training in public speaking. Thoughtful and persistent effort is unavoidable if a physician is to acquire any degree of skill.

Seek the guidance of the Medical Society's Committee on Public Information before participating in a health educational program not Society-sponsored.

THE WASHINGTON MEDICAL SCENE*†

HERBERT P. RAMSEY, M.D., F.A.C.S.

Past President, The Medical Society of the District of Columbia

As Colonel Rogers intimated in his introduction, I was born here, which few Washingtonians can say. Except for a few expeditions to foreign countries, to nearly every state in the Union, and to some of our possessions, I have lived here since before the turn of the century.

As a result of my long sojourn here, I can give the welcome of a Washingtonian to you. I can also welcome you on behalf of the Medical Society of the District of Columbia, whose members are happy to have you meet here, and probably would like to have you learn a little about medical Washington.

My parents moved here from a midwestern state long before my birth, and like most people who move to Washington discovered they had a lot of relatives back home. All of them had to see the Capital City, and all of them, of course, thought that "Will will be glad to have us stay with him." I didn't know I had so many relatives, and they all had to be shown around. One thing I liked about that was that since my father was busy trying to support a family and my mother trying to raise it, one of the boys had to get out of school to show the relatives around. They paid the carfare. They bought the lunch. All I had to do was to wear their legs out taking them all over Washington, including the top of the Washington Monument! It was wonderful.

Washington is a fascinating city. One historian said that it is "the only virgin capital of a nation in the world," meaning, I suppose, that it didn't just grow like most capitals, but was planned.

It is a new city as compared with so many in the world. Established in 1800, it is scarcely out of the incubator. In the early days there was so much trouble with livestock roaming the muddy roads where streets lined with commercial and public buildings now are, that the city authorities had to take steps to regulate how much freedom should be accorded to oxen, pigs, and goats. A lot of history, including medical history, has been packed into the intervening 154 years.

THE MEDICAL SOCIETY OF D. C.

Among the medical highlights was the organization of the Medical Society of the District of Columbia, which had its first meeting in about 1815. It is said that at that time there were about 28 members. Two years later, when the Society received its charter from Congress, signed by the President of the United States, James Monroe, 21 physicians signed it. Of these, 6 were surgeons in the United States Army, 2 in the Navy, and 1 served in both. Today its members number 1,964, not counting the membership of the 5 suburban county medical societies which are also active in the Washington scene.

This Society had a part in the adoption of the *United States Pharmacopoeia*, when a National Convention of Physicians met in the Capital, January 1, 1820, the first of the decennial meetings for the revision of the *U. S. Pharmacopoeia.*

Members of the Society were deeply interested in the formation of the American Medical Association. On January 4, 1847, they elected 3 delegates to meet with others in Philadelphia the succeeding May 5, when the organization of the Association was effected.

With its 35 committees, ours has become one of the most active of the state organizations. (It functions as both a state and county society, since there have been no counties in the District of Columbia in the last 100 years.) It has furnished 4 presidents and 8 vice presidents to the American Medical Association, and its voice carries some weight and influence in the deliberations of the House of Delegates of that body.

Physicians who live in Washington enjoy certain peculiar advantages for which they are profoundly grateful. Our members have the advantage of knowing and fraternizing with many physicians and medically interested laymen in all three branches of the Federal Government. There are usually physicians in the Congress of the United

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* Read at the 53rd Annual Meeting of the Medical Library Association in Washington, D. C., June 15, 1954.

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States who are our friends. At present in the House of Representatives there are Dr. Ivor D. Fenton and Dr. Thomas E. Morgan from Pennsylvania; Dr. Will E. Neal of West Virginia; Dr. Walter H. Judd of Minnesota; Dr. A L. Miller of Nebraska; and one delegate from Puerto Rico, Dr. A. Fernas-Isen. In the executive branch of the Government, physicians of the armed forces, Public Health Service, and the National Institutes of Health are constantly meeting with physicians of our organization.

Before the American Medical Association had a Washington office, and to some extent since, our Society has been the source of much information for Federal officials and, in turn, has gathered much information from them concerning activities and proposals about health and medicine in Government.

Some Medical Giants

Many interesting medical men have passed through and been active in the Washington medical scene during the past 137 years. They had the same virtues and faults that we have, the same jealousies and rivalries, and among them were some who were obviously giants. For the most part they were a versatile lot.

Two miles southeast of where we are, across the city, is the Congressional Cemetery, where repose the bodies of a great many of these distinguished persons. One of them was Tobias Lear, private secretary to General George Washington. Another was Dr. William Thornton, if I remember correctly, the twenty-eighth member of the Medical Society of the District of Columbia. He was architect of the United States Capitol and the first Commissioner of Patents of the United States.

It is possible to pick only a few of these literally hundreds of early men whose interests went far beyond the limits of their profession as practicing physicians. Dr. J. M. Toner, President of this Society 100 years ago, was President of the American Medical Association and President of the American Public Health Association. He collected early medical literature and, in 1882, donated to the Library of Congress his private collection exceeding 28,000 titles and 18,000 pamphlets, which are still preserved in a special collection.

Dr. S. L. Loomis, a contemporary of Dr. Toner, established the Adelphian Academy in Brockton, Massachusetts, and the Western Academy here, and aided in the establishment of Howard University. He was chairman of a special committee on chemical and mechanical instruments, and invented machinery to make textile fiber from pulp. To his other accomplishments he added the distinction of being an astronomer.

Elisha Cullen Dick, one of the important members of the District of Columbia Medical Society, was first to reach the bedside of President Washington in his last illness. Drs. Craik and Brown were also at the bedside during this great American's last illness. Dr. Dick was Mayor and Health Officer of the city of Alexandria. A fellow Mason, he was Worshipful Master of the first Masonic Lodge in Alexandria, both before and after George Washington held that post. During the Revolutionary War he was a Colonel of Cavalry. Dr. Dick was also the one who laid the cornerstone of the District of Columbia, April 5, 1791, at Jones Point, beyond Alexandria.

Three Medical Schools

Today in Washington we have 30 or 35 small medical societies representing specialty, alumni, and racial groups. In addition, there are 5 county societies in suburban areas which are part of the capital scene in the metropolitan area. There are 35 hospitals and 3 class A undergraduate medical schools.

The oldest of the medical schools, now known as the George Washington University Medical School, is the one from which I was graduated. The University was organized as Columbian University in 1821. Its medical school, started 129 years ago, was the seventeenth medical school to be established in the United States. The first lecture was given on March 13, 1825, by Dr. Thomas Sewell, Professor of Anatomy and Physiology. The George Washington Medical School has been at its present location since 1862. Its original building, the gift of Mr. W. W. Corcoran, was used until 1902, when the present Medical School, which I attended, was built. It is now the oldest medical school building in town. Needless to say, a new one is badly needed to accommodate its 350 students. The present George Washington Hospital was built in 1947. Across the street is the new building of the Warwick Memorial Cancer Clinic, which is just being occupied.

The total plant valuation of the George Washington Hospital and Medical School is about $11,000,000. Better than half a million is spent on its research program yearly. Some of the results of this research in recent times have been in cardiovascular surgery, a blood vessel bank, hypothermia for operations, reconstruction of the trachea, studies in arthritis and rheumatic disease, polio, the use of isotopes, and very active investigations in cancer.

Georgetown Medical School was the next medical school to be organized, in 1857. It was located originally on H Street, about four or five blocks from here, from 1886 to 1929, and then the present beautiful school on Reservoir Road in the western part of the city was built and occupied. It has 445 students.

The hospital was built adjoining the school in 1947. The plant investment, excluding the cost of the ground, is over $6,000,000. The research grants run to about $430,000 a year. Among the signal studies reported from this institution are the use of plastic heart valves surgically, reconditioning hearts for further life, studies in body composition by specific gravity, use of the artificial kidney, the use of the tape recorder in the teaching of clinical auscultation of heart sounds, and a simple test for gamma globulin in the spinal fluid, used primarily at present in multiple sclerosis.

Howard University was the third medical school to be established, at the time of the Civil War, when there was a great influx of freed men into the city of Washington. There were few hospital facilities available, and to meet the needs of these former slaves Congress appropriated funds for the establishment of Freedmen's Hospital. About the same time, Howard University Medical School was started to train Negro physicians. It now has 294 students.

As of now, Howard University Medical School and Freedmen's Hospital cover about 150 acres. There are six structures, built at a cost of over $3,000,000, and an annual research and teaching program which costs about $225,000. Its extensive research program, engaged in basic and clinical sciences, has made signal contributions to our knowledge.

U. S. PUBLIC HEALTH SERVICE

In addition to these medical schools, which are primarily undergraduate but include graduate teaching programs, we have some institutions under the aegis of the Federal Government. Howard University Medical School, which is largely supported by Federal appropriations, is one of these.

Among the most widely known, perhaps, are the U.S. Public Health Service and the National Institutes of Health. In the latter there are 7 institutes, the National Cancer Institute, the Mental Health Institute, the National Heart Institute, the Dental Health Institute, the Micro-Biological Institute, the Institute for Neurological Diseases and Blindness, and the Institute for Arthritis and Metabolic Diseases.

The total annual appropriation for the National Institutes of Health and Clinical Center amounts to about $71,000,000. The new clinical research center could conceivably house 1,500 beds, but more than half of the hospital is taken up with laboratories. Its 500 beds are simply the center for its vast research and study facilities. This hospital was built at a cost of about $60,000,000. The total cost of the entire plant, including all other buildings of NIH, is put at about $76,000,000.

There are between 450 and 500 separate research projects under way at present. This includes some statistical and administrative investigations, but the bulk of the research is in the field of medicine. Perhaps the most dramatic recent development at NIH is the use of two drugs, asparagine and glutamine in epilepsy. This may point the way to relief from seizures, if not to a possible cure. Among the many other projects under way are atherosclerosis studies on means of cleaning up deposits on the walls of arteries, and investigations in leukemia.

The foremost public psychiatric institution in the world, St. Elizabeths Hospital, is also under the Federal Government. The first building was constructed in 1852 on the present site across the Anacostia River from Washington. Many of the old buildings are now being replaced. Today it has 764 acres of land, 120 buildings, and 7,000 beds constructed at a cost of around $20,000,000.

In 1922, St. Elizabeths became the first hospital in the Western Hemisphere to make use of malaria in the treatment of general paresis. It is the first public mental hospital to utilize the technics of psycho-drama in therapy of mental illness. Two of its unique features, dance therapy and art therapy, have attracted wide and favorable interest in the treatment of mental illness. Of all public mental institutions that we know about, it is the foremost in active therapy of the sexual psychopath. Last year this institution was visited by representatives of 25 foreign countries.

Navy and Army Medical Centers

We in Washington are fortunate in our association with the armed services. One of the former members of our Society was the late William Holland Wilmer, founder of the Wilmer Institute at the Johns Hopkins Hospital, pioneer in aviation medicine, and former Brigadier General in the Medical Reserve in the Army. In his presidential address before the Association of Military Surgeons in 1930, he commented on the role of the military surgeon in science: "Military surgeons were forerunners of medical science," he said; "disease and obscure injuries were supposed to come from the displeasure of gods and demons and were treated by magic. Injuries of battle, however, were treated by human agents, they were understandable and necessitated some crude knowledge of anatomy and physiology, for they had to be treated by methods more rational than incantation. So military surgeons were the first contributors to medical science."

Among the armed services' medical installations is the National Naval Medical Center, located near the National Institutes of Health in Bethesda, Maryland. The first naval hospital in Washington was established over a hundred years ago at the Navy Yard. Later, in the 1860's or 70's a small hospital was built at 9th and Pennsylvania Avenue, S.E. This was not abandoned until 1911. About 1902 the forerunner of the present Naval Hospital was constructed at 23rd and E Streets, N.W. During the first decade of this century, the Naval Medical School was moved from New York to this site in Washington. The cornerstone of the new National Naval Medical Center at Bethesda, to which both school and hospital have been moved, was laid in 1939.

The initial appropriations for this Center were about $5,000,000. I have never found out what the final appropriations were. The Center now occupies 108 structures on about 242 acres. It comprises 5 organizations: the Hospital with 300 beds; the Medical School; the Dental School; the Medical Research Institute; and the School of Hospital Administration.

The Army has a set-up comparable to that of the Navy in the Walter Reed Army Medical Center. This Center had its inception in the mind of a Civil War Surgeon General, the 34-year-old William Alexander Hammond, who envisioned a great Army medical center in Washington. He recommended that there be a large general hospital in Washington, an Army medical school, and a central laboratory.

After the Spanish American War, Lt. Colonel William Cline Borden, who was, incidentally, Dean of George Washington Medical School when I was a student there, furthered the idea of a general hospital for the Army in Washington. This became to him an obvious need during the time that he was the Chief Surgeon of the Army hospital in the Washington Barracks between 1898 and 1906. In 1905 the first structures were built at Walter Reed. It was activated in 1909 as a Center and now is a huge plant covering a total of 321 acres with 381 buildings and 1,700 beds.

In addition to the main hospital, the Army Medical Research and Graduate School, and related facilities on upper 16th Street, there is the Forest Glen, Maryland, site for ambulatory patients, audiology, speech correction, prosthetic research laboratory, and the Army's first school for practical nurses. At Glenhaven, Maryland, there is also a housing project for enlisted personnel and their families.

The Center has scores of research projects under way in veterinary medicine, dentistry, surgery, medicine, cardiology, prosthetics, and neuropsychiatry. The hospital, which handles the most difficult and unusual cases for both the Army and the Air Force, is currently running at 100 per cent occupancy.

Army Medical Museum

One of the first things that Surgeon General Hammond, who foresaw the Army Medical Center, did when he assumed office in 1862 was to establish the Army Medical Museum, which was the beginning of what we know now as the Armed Forces

Institute of Pathology. It was started with specimens accumulated from the battlegrounds of the Civil War. Today it is a central repository for pathological material from all of the armed services and the civilian profession. Specimens have been forwarded to it from all over the world to make available material for study and to forward medical understanding and medical progress.

In 1870 Monsieur Berenger-Feraud stated that the United States had done as much in the matter of an anatomical pathological museum in five years as had been done in all of Europe in a century. Today this institution has 4 departments: the Department of Pathology; the American Registry of Pathology; the Medical Illustration Section; and the Medical Museum. The Department of Pathology receives about 4,000 acquisitions a month, mostly from the armed forces, but many from civilian pathologists seeking confirmation of diagnosis or contributing to the files for research and study maintained by the American Registry. (It is of interest that all specimens were preserved in alcohol until 1897, when the Museum switched to the use of Kaiserling solution, which was devised in that year by Carl Kaiserling while he was with Virchow in Berlin.)

During and after the last war, the A.F.I.P., its staff, students, and medical consultants, produced about 150 valuable, detailed studies on different projects. These have been enumerated in a paper by Brigadier General Raymond O. Dart, who commanded the Institute from 1946 to 1950.

The American Registry of Pathology is one of the ways in which civilian doctors everywhere participate in the work of the Armed Forces Institute of Pathology. The first registry, in ophthalmology, was established in 1922 by Brigadier General George R. Callender. There are now 22 registries partially maintained by specialty organizations and coördinated in the American Registry of Pathology.

It would take too long to enumerate the many projects which are under way at this great institution. In the service of science material is constantly being collected there and utilized for instruction, study, and research. In addition, the Illustration Service provides thousands of pictures and hundreds of thousands of feet of film to illustrate texts and to instruct students.

As you probably are beginning to see, we in Washington are surrounded with many valuable facilities for those who wish to study, to know, and to learn . . . and maybe to contribute.

ARMED FORCES MEDICAL LIBRARY

I would like to close these remarks by bringing to your attention one of the greatest of all of these institutions, the core of medical literature of this country—the Armed Forces Medical Library. Organized in 1836 by Surgeon General Lovell as the Surgeon General's Library, for some years it took up little space in a room of the building formerly occupied by Riggs National Bank. After various moves it was installed in 1887 in its present building designed for its joint use with the Army Medical Museum by Colonel John Shaw Billings, who was primarily responsible for its becoming the internationally famous medical library that it is today. The building was soon outmoded and outgrown. As a student in school, college, and medical school, and later as a physician, I realized what these organizations meant to the medical profession, and I have lain awake at night wondering what would happen if fire should break loose in that building.

Edgar Erskine Hume, one of the Library's most widely known directors, wrote, "Not long before his last illness, Dr. William Henry Welch paid a visit to the Army Medical Library, then called the Library of the Surgeon General's Office. He was one of the Library's oldest friends and constant users. As he sat in the librarian's office . . . smoking one of his black cigars, he fell into one of those reminiscent moods, which his friends and pupils so much enjoyed. . . . He spoke of the foundation of the Library, its growth, the place it occupies in the world of science, and then said, 'I have been asked on more than one occasion, what had been the really great contributions of this country to medical knowledge; I have given the subject some thought and think that four should be named: 1—the discovery of anesthesia, 2—the discovery of insect transmission of disease, 3—the development of the modern public health laboratory, and all that that term implies, and 4—the Army Medical Library and its *Index-Catalogue*' . . . and then more slowly he added . . . 'and this library and its *Catalogue* are the most important of the four.'"

John Shaw Billings, who was librarian for about 30 years and began the *Index-Catalogue*, in the best address he ever delivered, in 1881 before the International Medical Congress in London, said, "If the entire medical literature of the world, with the exception of that which is collected in the United States, were now to be destroyed, nearly all of it that is valuable could be reproduced without difficulty, but that which is here cannot be."

The Armed Forces Institute of Pathology, which for 67 years has shared the old building with the Library, will in this year occupy its new, modern, fire-proof structure on the grounds of the Walter Reed Medical Center.

What will happen to the Armed Forces Medical Library? A tragic blunder in planning took place a few years ago when the Library and the A.F.I.P. were permitted to be legislatively divorced. While the Institute of Pathology has acquired a new home, the Library has not. What is to happen to its over-a-million titles, its 500 of the world's incunabula in medicine? Between 60,000 and 80,000 of its titles have been shipped to Cleveland for storage. Others are housed in temporary buildings which are not fire-resistant. In a few hours fire could destroy this Library which has a reference use of approximately 120,000 a year.

When my friend, Charles Reynolds, was Surgeon General, about 20 years ago, Congress passed an authorization for the construction of a new building for this Library. Colonel Rogers, who presently commands the Library, showed me some of the sketch plans which are in existence. The Secretary of Defense has asked the Secretary of the Navy to designate a site for the Library on the grounds of the Naval Medical Center, at Bethesda. The delegates from the District of Columbia Medical Society, in line with the Society's tradition of forwarding medical science's interest in every field, will bring before the American Medical Association meeting in San Francisco, in June 1954, a resolution which will in effect ask the American Medical Association to spearhead a drive among medical organizations to secure through Congress a modern building to protect this great national scientific heritage.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, July 25, 1955, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Audrey M. Connor, 3130 Wisconsin Avenue, N.W.
Jack Crowell, 8031 Eastern Avenue, Silver Spring, Md.
Robert H. DeWitt, Children's Hospital
Maryanna E. Dotson, 1835 Eye Street, N.W.
Frederick D. Drew, 1430 Crittenden Street, N.W.
Morton P. Eanet, 1302 18th Street, N.W.
Marshall H. Jacobson, 1913 Sudbury Road, N.W.
George A. Kelser, Jr., 901 23rd Street, N.W.
Marvin L. Kolkin, 2002 Patterson Street, West Hyattsville, Md.
Marvin C. Korengold, 1726 Eye Street, N.W.
William G. Lofton, Sr., 1735 11th Street, N.W.
Daniel Mack, Washington Clinic
Paul R. McCurdy, Georgetown University Hospital
A. Genevieve McEldowney, 2651 16th Street, N.W.
Tanner B. McMahon, 1737 11th Street, N.W.
Marvin Earl Perkins, 1501 Dublin Drive, Silver Spring, Md.
James G. Sites, George Washington University Hospital
Maurice B. Wehr, 1712 Rhode Island Avenue, N.W.
William H. Weidman, Washington Clinic
Marc Lee West, 1523 38th Street, S.E.

Associate Members

Robert L. Bregman, 3515 Mt. Vernon Avenue, Alexandria, Va.
Arthur G. Compton, 3512 Runnymede Place, N.W.
John Harry King, Jr., Washington Clinic
Edward B. Price, Jr., 2601 Woodley Place, N.W.
James Henry Stallings, 4406 N. Henderson Road, Arlington, Va.

Dr. Irving L. Berman was inadvertently omitted from the list of applicants elected to Associate membership, April 18, 1955.

The following applicants for membership will be voted on at the meeting of the Executive Board, November 28, 1955.

For Active Membership

Jesse A. Keene, Howard University—1924
Earl D. Neslen, Columbia University, 1949
Robert H. Robertson, Temple University—1948
Warren S. Wilkins, Howard University—1945

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
September 27	Dr. Desmond O'Doherty	What We Know About Muscular Dystrophy	District Chapter, Muscular Dystrophy Association of America
October 3	Dr. John R. Pate	The Present Status of the Polio Vaccine	Lamond-Riggs Citizens' Association
October 5	Dr. Cornelius P. Frey	Reconstructive Hand Surgery	Metropolitan Washington Industrial Nurses' Association
October 5	Dr. Christine Kehne	Mental Health—Known and Unknown	Silver Spring Woman's Club
October 6	Dr. Leonard A. Scheele	Water Pollution	Junior Chamber of Commerce
October 14	Dr. Harold Hobart	The Effect of Smoking on Children	Student Assembly, Paul Junior High School
October 17	Dr. Maxwell Boverman	Mental Health—Is This Your Business?	Westmoreland Congregational Church
October 20	Dr. Richard H. Todd	The Physician's Place in Solving Today's School Problem	Parent-Teacher Institute of George Washington University and District Congress of Parents and Teachers
November 1	Dr. Louis Goldstein	Female Disorders	Women's Club of Washington Highland Jewish Center
November 14	Dr. Zigmond M. Lebensohn	Psychiatry—Conceptions and Misconceptions	Westmoreland Congregational Church

For Associate Membership

James J. Leonard, Georgetown University—1950
Lewis C. Robbins, Indiana University—1935

Recent changes in membership status:

Reinstated to Active

William K. Billingsley, Jr.
Charles W. Humphreys

Active to Associate

Claude C. Caylor, Jr.
Harry J. Crawford
Walter Freeman
John H. McLeod
William F. Schmidt
Bruce I. Shnider

Active to Affiliate

Sydney Leventhal

Affiliate to Associate

Christopher J. Murphy

Resigned
Active

George R. Farrell
Clemmer M. Peck
Maryjo Roth
Garrett M. Swain

Affiliate

Landon G. Gant

Associate

M. Isabel Reith

On the Lighter Side

Fishing can be the world's most interesting and exciting sport, or it can be the dullest. It all depends on the fish, and where to find them.

Now a fish can be an elusive, crafty and cunning creature when his appetite has been satisfied, or when fear predominates over his natural hunger; but dangle a juicy morsel of bait before his eager little eyes when his stomach is empty and his neuroses are nil and, brother,—bang!—you have got yourself a fish. However, on a rainy, chilly day when the water is choppy and the fish not biting, there is no fun in fishing for the average fisherman. But do not assume that Dr. Frank S. Ashburn is an average fisherman! And thereby hangs the tale.

One year ago, Dr. Frank S. Ashburn was introduced to Chesapeake Bay fishing by that old master fisherman, Dr. Louis J. Goffredi. Now Dr. Ashburn is not only a devoted disciple of the master and the sport, but an "every Thursday" Bay fisherman from May 15 through December 15.

Dr. Ashburn's port of embarkation is Solomon's Island. His boat is one of the Captain George Willing fleet, or he makes the news headlines on Captain Andy Scheibles' *Mary Lou* from the Fishing Center in Smith's Creek, Point Lookout.

Dr. Ashburn's newsworthy event took place in August of this year, and resulted in his landing of two famous Florida fish, the cobia or sergeant fish, one of 70 pounds and the other of 30 pounds.

There is a neat trick involved in catching cobia, and Dr. Ashburn, admittedly a novice at the sport, gave credit to the boat captain, who high-tailed it for open water as soon as the big fish struck the live trout bait that was swimming around down in the murky depths of the high shoal of the Middle Ground, where lies the now defunct hull of the old *U.S.S. Hannibal.*

Dr. Ashburn used a 108-pound test line with piano wire leader, and a no. 8 or 9 big hook baited through the nose of a live trout. He allowed the trout to swim nonchalantly around down by the wreck where the really big fish hide. Then when the hungry cobia saw his dinner flipping her tail in his face he opened up his big mouth and swallowed her. The cobia was naturally embarrassed to find that he had swallowed not only a live trout but a sharp hook besides; therefore he scurried for the safety of the *Hannibal* as fast as his fat tail would carry him. But alas! Mr. Cobia was too slow, and before he could snafu the line inside the old wreck, the good captain had set full speed ahead out into the open water and Mr. Cobia was dragged along whether he liked it or not.

It took Dr. Ashburn, plus all hands on deck, two hours to get the big fish into the boat after the fish was hooked. This is not surprising, considering that the cobia is one of the strongest fish in the Middle Atlantic waters and by instinct does not like to be hauled out of the water, his natural habitat, into a smelly old boat.

The cobia, states Dr. Ashburn, is a fine eating fish when properly prepared into steaks, fried in butter and then soused with a good French wine sauce. You can also get a lot of eating mileage out of a cobia because they run up to and over 100 pounds per fish. Therefore, you can see what a cook's delight one of these big fish could be. Imagine, if you can, all of the fish steaks, fish cakes, fish soup, fish chowder and fish sticks one could prepare from a decent sized cobia!

Dr. Ashburn and his fishing mentor go out on the Bay once every week, and always get a hundred to 150 fish every fishing day. The species of fish that Dr. Ashburn ices and brings back for home consumption vary with the season but they include spots, hardheads, blues, eels, toadfish, and, after the first frost settles, the rockfish. Fisherman Ashburn states that there are plenty fish in the Bay. He said that the secret of hauling in the big catches is to know where the fish are and then go get 'em—it's that simple.

J. Earl Kadan, M.D.

News and Personals

MEETINGS—Past and Future

The 1955 Clinical Meeting of the American Medical Association will be held in Boston, November 29–December 2, in Mechanics Hall and at the Hotel Statler, where the House of Delegates will be in session. About 200 scientific papers and exhibits have been scheduled for presentation; the attendance is expected to reach 4,000. This session of the AMA has been planned with the coöperation of organized medicine throughout all the New England states. Attending from Washington will be the Society's official delegates, Drs. Hugh H. Hussey and Raymond T. Holden; its President-elect, Dr. Ralph M. Caulk, and Theodore Wiprud, Secretary.

The American Academy of Ophthalmology and Otolaryngology held its 60th Annual Session and an Instruction Course at the Palmer House in Chicago, October 9–14. Washington participants in the meetings included Drs. Frank D. Costenbader, Marshall M. Parks, Dan G. Albert, J. Harry King, Jr., Benjamin Rones, M. Noel Stow, L. Conner Moss, Lorenz E. Zimmerman, Everett S. Caldemeyer, G. Victor Simpson, and Victor R. Alfaro, all members of the District Medical Society.

In a Symposium on Diseases of the Optic Nerve, Dr. Zimmerman discussed the "Pathology of Multiple Sclerosis and Allied Diseases." He also assisted in the presentation of a statistical study on malignant melanomas of the choroid. Dr. Zimmerman and Major William R. Armstrong, of the Armed Forces Institute of Pathology, presented an exhibit on "Pathology of the Optic Nerve."

Dr. King, with the aid of several members of the staff of Walter Reed Army General Hospital, presented a paper on "Prednisone and Prednisolone in Ophthalmology: Experimental Studies."

Drs. Costenbader, Parks, and Albert, with the assistance of Dr. Hermann M. Burian, of Iowa City, Iowa, gave a 12-hour instruction course on "Comitant Strabismus." Drs. Stow and Moss held a 2-hour course on "Diagnostic and Therapeutic Office Procedures." In a course on "Histopathology," Dr. Zimmerman contributed a lecture on "Granulomatous Infections of the Eye." Dr. Simpson was responsible for two courses, one on "Convergence Insufficiency and Divergence Excess" and the other on "Probing of the Nasolacrimal Duct in the Adult."

In the courses devoted to otolaryngology, Dr. Alfaro contributed one on "Office Design and Equipment and Technics in Otolaryngology." Dr. Alfaro represents the Academy on its Committee on Pan American Relations in Otolaryngology.

Dr. Costenbader is the senior representative of the Academy to the American Orthoptic Council. He is also Secretary-Treasurer of the Council, which held its annual meeting on October 8, just prior to the opening of the Academy's annual session.

Among the alumni dinners during the session was the Episcopal Hospital Residents' Association, which was held at the LaSalle Hotel, October 12. Twelve ophthalmologists (former residents of Episcopal Hospital) and their wives were present for the occasion. Dr. Caldemeyer presided at the dinner in the absence of the President, Dr. Harold R. Downey.

At the annual meeting of the **American Society of Clinical Pathologists** in Chicago, October 10–15, Dr. Thomas M. Peery, Professor of Pathology, George Washington University School of Medicine, was named to the Executive Committee.

Dr. Oscar B. Hunter, Jr., conducted a workshop in the use of radioactive isotopes at this meeting.

Two Associate members of the Society, Dr. William D. Dolan, of Arlington, Va., and Dr. Richard E. Palmer, Alexandria, presented a paper in which they reported their experience in hemoglobin test surveys in the Washington area. Dr. Lorenz E. Zimmerman, also an Associate member, conducted a short refresher course in ophthalmic pathology.

Of interest also to Washington physicians was an

GEORGETOWN CITED BY AMA AND CIBA

Dr. Francis M. Forster (left), Dean of Georgetown University School of Medicine, is accepting a special Certificate of Merit for the University from Dr. W. Ross Morris, President of the Medical Society of the District of Columbia, who presented it in behalf of the American Medical Association and Ciba Pharmaceutical Products, Inc.

exhibit by Lt. Colonel Frank Townsend, USAF, Major William Reals, USAFR, and Lieutenant Richard E. Danielson, USAFR, entitled "Protein-bound Iodine Determination Using the Leffler Method." The Leffler referred to is Dr. Harrison H. Leffler, an Active member of the D. C. Medical Society.

The Section on Gastroenterology held its first fall meeting on October 3. Dr. J. Ogle Warfield, Jr. was dinner host to the members at the Cosmos Club. Dr. William W. Chase read a paper on "Management of Obstructions of the Colon."

Members of the **Section on Ophthalmology** met for dinner and program at the Kennedy-Warren on October 25. The guest speaker was Dr. L. Harrell Pierce, of Johns Hopkins University, who spoke on "Surgery of Detached Retina."

The Washington Psychiatric Society met, September 23, in the auditorium of the District Medical Society. Dr. Paul Hoch, Commissioner of Mental Hygiene, State of New York, spoke on "Newer Drug Treatments in Psychiatry and Their Practical and Theoretical Implications." Dr. Paul K. Smith, Professor of Pharmacology, George Washington University School of Medicine, led the discussion which followed.

Dr. Roy Grinker, Director, Institute for Psychosomatic and Psychiatric Research and Training, Michael Reese Hospital, Chicago, addressed the Society, October 28. His subject, "A Psychosomatic Approach to Problems of Anxiety," was also discussed by Dr. David McK. Rioch, Technical Director, Department of Neuropsychiatry, Army Medical College Graduate School, Walter Reed Army Hospital, and by Dr. George C. Ham, Chairman, Department of Psychiatry, University Memorial Hospital, Chapel Hill, N. C.

The Secretary of the Society calls attention to the fact that the meetings of the Society are held on the fourth Friday of every month with the exception of December 16 and April 13. The meeting on November 25 will be a joint one with the Washington Psychoanalytic Society. In December the speaker will be Dr. Edward J. Stainbrook, of Syracuse, N. Y.

The Jacobi Medical Society held its opening fall dinner meeting at the Willard Hotel, October 17. Dr. Irving Burka, President of the Society, presided. Mr. Robert McCormick, NBC commentator, who was the guest speaker, related some of his personal experiences in Germany.

The Society will hold its second annual dinner dance at the Woodmont Country Club on Saturday, December 17.

The District of Columbia Division of the American Cancer Society elected Dr. Calvin T. Klopp to be President at its ninth annual meeting, October 17. The meeting was held in the auditorium of the D. C. Chapter of the American Red Cross at 2025 E Street, N. W.

Dr. Klopp, Director of the George Washington University Cancer Clinic, is one of the original incorporators of the D. C. Division of the Society and has served as Secretary of the Board of Trustees since its organization in 1946.

Other officers elected were: Wylie W. Barrow, Vice President; Philip A. Hanigan, Jr., Secretary; Frederick P. H. Siddons, Treasurer; Kenneth Birgfeld and Ralph H. Mittendorff, Assistant Treasurers.

New members elected to the Executive Committee were Dr. Paul B. Cornely, Frank H. Weitzel and Clayton R. Sanders. Renominated to the Committee were Drs. Harry H. Kerr, Raymond T. Holden, Murray M. Copeland, and Ralph M. Caulk; also Mrs. Estelle C. Kaufmann, William E. Leahy, Alfred H. Lawson, and Eliot Wadsworth.

Dr. John R. Heller, Jr., Director of the National Cancer Institute, was the principal speaker at the annual meeting, which was open to the public. He spoke on "Advances in Cancer Control."

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia met in regular session, September 26, 1955. Dr. Ralph M. Caulk was asked to represent the Medical Society at a Study Conference at AMA Headquarters in Chicago, October 22, where more than 100 representatives of constituent medical associations met to consider pending medical legislation. Theodore Wiprud also attended this conference and presided at a meeting the preceding day of the AMA's Public Relations Advisory Committee, of which he is Chairman.

Upon the recommendation of the Committee on Vocational Rehabilitation, of which Dr. P. A. McLendon is Chairman, formal approval was given by the Board to the proposal that the name of the committee be changed to Council on Vocational Rehabilitation of the Medical Society of the District of Columbia and that the Council affiliate itself with other organizations having to do with the total restoration program of the handicapped. With the approval of the Board, President Morris appointed Drs. G. Victor Simpson, Allan E. Walker and Hill Carter to the new Council on Vocational Rehabilitation.

DR. SCHREINER DEMONSTRATES ARTIFICIAL KIDNEY

DR. GEORGE E. SCHREINER (right) and DR. LEONARD B. BERMAN are taking a blood sample out of the cannula connected to the patient's radial artery. This procedure was seen on Ciba's TV program, "Medical Horizons," which originated at Georgetown University Hospital, October 10.

Georgetown University Hospital was the setting for **Ciba's "Medical Horizons" TV program,** October 10. Dr. George. E. Schreiner and his associates demonstrated the functioning of an artificial kidney, with Mrs. Schreiner enacting the role of the patient. Dr. Schreiner was interviewed by newscaster Don Goddard.

At the Georgetown Medical School, while the demonstration was in progress, officials of Ciba Pharmaceutical Products were hosts to Dean Francis M. Forster of the Medical School and members of his staff, University officials, and invited guests at a special TV showing of the program, followed by a buffet supper. Among those present was Dr. W. Ross Morris, President of the Medical Society of the District of Columbia, who presented Dr. Forster, with Dr. Schreiner present, a certificate of merit from the American Medical Association and Ciba in recognition of the role Georgetown has played in TV pioneering. Dr. Forster accepted the certificate in behalf of the University and its faculty.

"Medical Horizons" is a weekly program sponsored by Ciba and presented in coöperation with the

American Medical Association. Beginning September 12, it is telecast each Monday evening at 9:30 p.m. over the ABC—TV (Washington, WMAL—TV) network for a minimum of 26 weeks. The present series takes its viewers on a tour of America's leading medical research centers to witness the advances being made by medical science.

Dr. Frank E. Wilson, until recently Director of the Washington Office of the American Medical Association, has accepted a new appointment as **Executive Vice President and Secretary of the Joint Blood Council,** effective November 1. The national headquarters of the Council are located at 1832 M Street, N. W.

The JBC is a completely voluntary group, formed by the 5 national associations principally concerned with procuring, processing, preserving and distributing blood and blood derivatives. These organizations are the American Association of Blood Banks, the American National Red Cross, the American Medical Association, the American Hospital Association, and the American Society of Clinical Pathologists, which have equal representation on the Council's Board of Directors.

Its objective is to coördinate all activities in this field, including the interchange of blood, the standardization of cross-matching and typing procedures, the accreditation and inspection of blood banks, the stimulation of blood donor campaigns, and the encouragement of research. In time of emergency the Council will be prepared to assist in setting up new blood banks and to handle requests of the military forces for blood and blood derivatives.

Officers of the Council are: Dr. Leonard W. Larson, Bismarck, N. D., President; Dr. Merlin L. Trumbull, Memphis, Vice President; and Dr. Karl S. Klicka, Chicago, Treasurer. The Directors are, in addition to the officers, Drs. David N. W. Grant and Frank W. Konzelmann, of Washington; Dr. Walter B. Martin, Norfolk, Va.; Dr. James J. Griffitts, Miami, Fla.; Dr. Donald H. Kaump, Detroit, Mich.; Dr. Edwin L. Crosby, Chicago, Ill.; and Mr. Charles H. Kellstadt, Atlanta, Ga.

Dr. Wilson was associated with the AMA's Washington Office for 7 years and was its Director for the last 3 years. He served in the U. S. Army during World War II and is a Brigadier General in the Medical Reserve Corps. He is a diplomate of the American Board of Preventive Medicine and was the first Secretary of the AMA's Committee on Blood.

Dr. Thomas H. Alphin, Deputy Director of the **Washington Office of the American Medical Association** for the past few months, assumed the directorship of the Office on November 1, succeeding Dr. Frank E. Wilson.

Dr. Alphin served as Assistant Director of the Washington office for two years, February 1953 to March 1955, when he resigned to accept the post of Assistant Dean of the Department of Medicine and Associate Professor of Anatomy at the University of Missouri School of Medicine. As Assistant Dean, Dr. Alphin assumed responsibility for administration of medical student affairs and, as chairman of the committee on postgraduate education, established the current program for postgraduate medical continuation education in three different areas of the state.

The George Washington University School of Medicine held its Opening Assembly, which marked the beginning of its 132nd session, September 19. Dean Walter A. Bloedorn greeted the students and invited guests, after which Dr. R. Keith Cannon, Chairman of the Division of Medical Sciences, National Academy of Sciences, National Research Council, gave the principal address, entitled "A Question of Style." Following the Assembly, Dr. Bloedorn was host to members of the medical faculty and to a number of distinguished guests at a luncheon at the Mayflower Hotel.

Dr. Carl M. Peterson, of Chicago, Secretary of the American Medical Association's Council on Industrial Health, died, September 27, of injuries received in the crash of a private plane the preceding day. He was en route to Asheville, N. C., for a conference on industrial health services.

Dr. Peterson had been a member of the headquarters staff of the American Medical Association since 1930, when he accepted a position as hospital inspector. A graduate of the University of Minnesota in 1927, he practiced for a while in the Duluth Clinic and later as a general practitioner. He had been Secretary of the Council since 1938.

Miss Jane Stafford, medical staff writer for *Science Service of Washington, D. C.*, was selected by the American Heart Association as one of four winners of its 1955 Howard W. Blakeslee Awards for outstanding year-round coverage of developments in heart and blood vessel disease. The award was made at the Association's annual dinner in New Orleans, October 28.

Devitt's Camp of Allenwood, Penna., whose advertisement has appeared in almost every issue of the MEDICAL ANNALS since it was first published in 1932, has closed the account because its institution for the treatment of tuberculous patients is being converted into a home for the chronically ill and the infirm aged. In a letter addressed to the Managing Editor, Mr. William Devitt, Superintendent of the Camp, makes a pertinent comment when he says, "... the medical advance in the field of treating tuberculosis has made us come to this decision, as all of us must bow to progress in this changing world."

PERSONALS

Dr. Paul F. Dickens, Professor Emeritus of Clinical Medicine at George Washington University School of Medicine, was invited to Memphis, Tennessee, September 26, to receive the University of Tennessee's Certificate of Merit. The award was made in recognition of Dr. Dickens' 50 years of service "to members of his community, both in the U. S. Navy and in civil life." He also received the "Golden T" from the Memphis Division Alumni Association of the University of Tennessee.

Dr. Dickens was a member of the faculty of George Washington University from 1929 until 1953. He was Assistant Professor of Medicine at Georgetown University from 1925 until 1929, and served as Professor of Medicine at the U. S. Naval Medical School from 1925 to 1938, when he retired from active duty as a Lieutenant Commander.

Rear Admiral H. Lamont Pugh, former Surgeon General of the Navy, assumed command of the **National Naval Medical Center,** September 30, 1955, succeeding Rear Admiral Leslie O. Stone, who has retired to enter private practice at Tryon, N. C. Rear Admiral Thomas F. Cooper succeeded to Admiral Pugh's more recent post as Inspector General of Medical Department Activities.

Dr. Thomas M. Peery, Professor of Pathology at George Washington University School of Medicine, was invited by the University of Puerto Rico, in San Juan, to serve as Visiting Professor in Pathology the first week of November. Dr. Peery gave three lectures and conducted a clinicopathologic conference at the University.

Dr. I. Phillips Frohman was awarded a fellowship in the American Medical Writers' Association at the Association's 12th Annual Meeting in St. Louis, September 30. Fellowships were awarded to 19 members of the Association "in recognition of high qualifications, personal and professional, and of established standing as a medical writer, journalist or publisher."

At this meeting the Association presented its 1955 Honor Awards for Distinguished Service in Medical Journalism to the following medical publications: the *Public Health Reports* of the U. S. Public Health Service; the AMA's *Archives of Surgery*, and *The Bulletin, Sangamon County Medical Society*, published in Springfield, Illinois.

Drs. Harvey Ammerman and Laszlo Ormandy were elected to fellowship in the International College of Surgeons during the meeting of the U. S. Chapter in Philadelphia, September 12–15.

Dr. Reamur Donnally has been named Advisory Editor on Medicine for the Encyclopedia Americana. He will help prepare articles in the field of medicine, advise the editorial staff in selecting contributors for medical subjects, and write some medical articles.

Dr. Donnally is a graduate of Johns Hopkins University School of Medicine and a medical consultant in cardiology at Emergency and Garfield Memorial Hospitals. During World War II he served two years in the Naval Medical Corps.

Dr. Carlton N. Price has returned from a six weeks' tour of the Far East, an assignment he carried out for the Surgeon General of the Army. Dr. Price visited all the American base hospitals in Japan, Korea, Okinawa, and Honolulu.

Upon his return to the States in the middle of September, Dr. Price gave two addresses before the Utah State Medical Society in Salt Lake City, September 10–11. These talks were entitled "Office Gynecology" and "Indications and Contraindications for Various Pelvic Operations."

Dr. Brian Blades, Head of the Department of Surgery, George Washington University School of Medicine, addressed the monthly medical staff meeting of Walter Reed Army Medical Center, October 20. His topic was "The Hiatal Hernia."

Dr. Charles A. Hufnagel, Director of Experimental Laboratory in Surgery, Georgetown University School of Medicine, addressed the Tenth District Medical Society of North Carolina in Asheville, October 12. Dr. Hufnagel spoke on "The Surgical Treatment of Arteriosclerotic Disease."

Dr. Samuel M. Dodek, Associate Clinical Professor of Obstetrics and Gynecology, George Washington University School of Medicine, attended the 14th British Congress of Obstetrics and Gynecology in Oxford, England, July 24–29, and participated in a symposium on "The Management of the Unhealthy Nonmalignant Cervix."

Dr. John P. McGovern, Associate Professor of Pediatrics, Tulane University of Louisiana, spoke on "Pediatric Iatrogenics" at Duke University's Medical Alumni Reunion and Scientific Session in Durham, N. C., October 21. Dr. McGovern is an Active member of the District Medical Society.

Dr. Harold Jeghers, Professor and Director of Medicine, Georgetown University School of Medicine, addressed the medical staff of the Pennsylvania Hospital in Philadelphia, September 19, on the subject, "Oral Lesions Indicative of Systemic Disease."

Dr. Jeghers gave a similar lecture at the staff meeting of the U. S. Naval Hospital in Portsmouth, Virginia, September 30.

Dr. Laurence H. Kyle, Associate Professor of Medicine, Georgetown University School of Medicine, addressed the 50th Annual Meeting of the Eighth District Branch of the Medical Society of New York State, September 28; he spoke on "Changing Aspects of Thyroid Function." The meeting was held in Niagara Falls, New York.

Dr. Kyle addressed the Arlington County Medical Society, November 17, on "The Use of Hormones in Daily Practice."

Dr. George Maksim, Chairman of the Committee on Public Information of the District of Columbia Medical Society, was named by the District Commissioners to a 7-member Board of Appeals and Review to hear cases under the city's newly adopted Housing Code.

Dr. Julius S. Neviaser read a paper on "Comminuted Fractures of the Ankle" before the American Fracture Association at its meeting at Hotel Fountainebleau, Miami Beach, Fla., September 22.

Dr. Neviaser and Dr. Sanford Eisenberg were joint authors of a paper on "Surgical Indications and Technic for Treatment of Tibial Plateau Fractures," which Dr. Eisenberg presented, October 27, at the Alumni Meeting of the Hospital for Joint Diseases in New York City. Following its presentation Dr. Neviaser discussed the paper.

Dr. Benjamin Karpman, Chief Psychotherapist at St. Elizabeths Hospital, gave a lecture before the Annual Meeting of the Middle Atlantic Chapter of the Association for Physical and Mental Rehabilitation, September 17. The meeting was held at the headquarters of the American Psychological Association in Washington, D. C. Dr. Karpman spoke on "The Sexual Offender and His Offenses."

Dr. Robert E. Moran was appointed Chairman of the Rehabilitation Committee of the American Society of Plastic and Reconstructive Surgery at the Annual Meeting of the Society in Atlantic City, N. J., September 25–30.

Dr. Charles P. Cake, Director of the Division of Tuberculosis Control for Arlington County, Va., was elected President of the Southern Tuberculosis Conference at the conclusion of a three-day meeting in Louisville, Ky., September 28. Dr. Cake is an Associate member of the District Medical Society.

Dr. Jacob J. Weinstein was invited to Richmond, Va., October 19, to participate in a panel discussion sponsored by the Virginia Society of Pathology during the annual scientific session of the Medical Society of Virginia. Dr. Weinstein's paper concerned "Limitations of Laboratory Procedures" and dealt with some of the surgical aspects, particularly blood volume and electrolyte studies.

Dr. W. Calhoun Stirling presented a paper on "Congenital Anomalies of the Upper Urinary Tract" before the Uro-Surgical Society at the Cavalier Club in Virginia Beach, Va., October 12.

Dr. Bela Gondos, Washington radiologist, has been appointed Chief of the Department of Radiology of the District of Columbia General Hospital. Dr. Gondos graduated from the Peter Pazmany University School of Medicine in Budapest, Hungary, in 1927. He is a diplomate of the American Board of Radiology.

Dr. Peter D. Comanduras, a member of the Board of Trustees of the District of Columbia Division of the American Cancer Society, will be one of the judges for a school essay project in the District of Columbia. The topic for the essay is "Youth Looks at Cancer" and is open for competition to students in the tenth, eleventh and twelfth grades. The contest closes December 15. U. S. Savings Bonds will be awarded for the three best essays.

Dr. Leonard A. Scheele, Surgeon General of the U. S. Public Health Service, was one of the speakers at the American Hospital Association's annual convention in Atlantic City, N. J., September 19-22. He spoke on "New Opportunities for Planning Health Facilities."

At the meeting of the House of Delegates of the AHA, **Rear Admiral Bartholomew W. Hogan,** Surgeon General of the Navy, was elected delegate-at-large for a three-year term.

Dr. Jeanne C. Bateman was the guest speaker, September 12, on the NBC radio program, Patty Cavin Capital Bylines. She described a new instrument, the liquid scintillation spectrometer, which was recently installed at Garfield Memorial Hospital. This instrument was demonstrated at the recent Atoms for Peace Conference in Geneva, Switzerland.

The Washington Highlands Medical Clinic, which was founded on September 8, 1950, recently celebrated its fifth anniversary with a banquet at the Woodner Hotel, which was attended by 24 doctors, dentists and their wives. **Dr. Reuben Sorkin,** Director of the Clinic, presided and introduced the guest speaker, **Dr. Wallace M. Yater,** Director of the Yater Clinic.

Dr. George I. Mishtowt left, September 1, for Baghdad, Iraq, to be gone about two years. In Baghdad he will be a member of the American Embassy as medical attaché to the Middle East.

Dr. J. Ogle Warfield attended the postgraduate course sponsored by the American College of Gastroenterology in Chicago, October 27–29. He also attended the meeting in Chicago of the American College of Surgeons and its Postgraduate Course on Liver, Biliary Tract and Pancreas, October 31–November 4.

Dr. Peter N. Lombard, an Affiliate member of the District Medical Society, has been elected to the Board of Directors of the Kiwanis Club of Silver Spring.

Dr. Karl H. Wood, an Associate member of the District Medical Society, has been elected a Director of the District Building and Loan Association. He succeeds his father, the late Dr. Harold A. Wood, who served on the Board since 1934.

Dr. Robert V. Choisser was separated from active duty with the U. S. Naval Medical Corps Reserve, September 18, and has resumed practice in Washington in association with Dr. Fred A. J. Geier at 1801 Eye Street, N.W.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Peptic Ulcer—Diagnosis and Treatment. Clifford J. Barborka, M.D., M.S., D.Sc., F.A.C.P., Associate Professor of Medicine and Chief, Gastrointestinal Clinics, Northwestern University Medical School; Attending Physician, Passavant Memorial Hospital; Senior Consultant in Gastroenterology, Veterans Administration Research Hospital, Chicago, Illinois; formerly Consulting Physician, Mayo Clinic, AND E. CLINTON TEXTER, JR., M.D., Associate in Medicine and Assistant Chief, Gastrointestinal Clinics, Northwestern University Medical School; Attending Physician, Passavant Memorial Hospital; Attending in Gastroenterology, Veterans Administration Research Hospital, Chicago, Illinois. Price, $7.00. Pp. 290, with 33 illustrations. Boston: Little, 1955.

The Management of Oral Disease—A Treatise on the Recognition, Identification, and Treatment of Diseases of the Oral Regions. JOSEPH L. BERNIER, D.D.S., M.S., F.D.S., R.C.S. (Eng.), Colonel, Dental Corps, United States Army; Chief, Oral Pathology Branch, Armed Forces Institute of Pathology; Pathologist to the Registry of Oral Pathology of the American Dental Association; Professor of Oral Pathology, Georgetown University School of Dentistry; Chairman, Dental Research Advisory Committee to the Medical Research and Development Board, Department of the Army; Special Lecturer in Oral Pathology, Educational Advisor to the Dental Division, and Chief of the Department of Oral Medicine, Army Medical Service Graduate School; Consultant in Oral Pathology to Veterans Administration Central Office. Price, $15.00. Pp. 825, with 1001 text illustrations and 5 color plates. St. Louis: Mosby, 1955.

Clinical Biochemistry, 5th ed. ABRAHAM CANTAROW, M.D., Professor of Biochemistry, Jefferson Medical College; Formerly Associate Professor of Medicine, Jefferson Medical College and Assistant Physician, The Jefferson Hospital, Philadelphia, AND MAX TRUMPER, PH.D., Formerly Lecturer in Clinical Biochemistry and Baisc Science Coördinator, Naval Medical School, National Naval Medical Center, Bethesda, Maryland. Price, $9.00. Pp. 738, with 54 figures. Philadelphia: Saunders, 1955.

Premature Infants—A Manual for Physicians, 2nd ed. ETHEL C. DUNHAM, M.D., Formerly Associate Clinical Professor of Pediatrics, Yale University School of Medicine; Director, Division of Research in Child Development, U.S. Children's Bureau; and Consultant in Pediatrics, World Health Organization, Geneva, Switzerland. Price, $8.00. Pp. 459. New York: Hoeber-Harper, 1955.

Human Pathology, 8th ed. HOWARD T. KARSNER, M.D., LL.D., Former Professor of Pathology, Western Reserve University; Medical Research Advisor to the Surgeon General of the United States Navy. Price, $15.00. Pp. 960, with 557 illustrations in black and white and 19 subjects in color on 14 plates. Philadelphia: Lippincott, 1955.

Psychiatric Research Reports 1 of the American Psychiatric Association: Pharmacologic products recently introduced in the treatment of psychiatric disorders, consisting of papers presented at a Regional Conference held under the joint auspices of the American Psychiatric Association and the University of Texas Medical Branch, Galveston, Texas, February 18–19, 1955. Edited by Members of the Committee on Research, 1954–55: Jacques S. Gottlieb, M.D., *Chairman;* Nathan S. Kline, M.D.; William T. Lhamon, M.D.; Albert E. Moll, M.D.; Harold E. Himwich, M.D.; and George Saslow, M.D. Price, paper, $2.00. Pp. 152. Washington: American Psychiatric Association, 1955.

Counseling in Medical Genetics. SHELDON C. REED, Director, Dight Institute for Human Genetics, The University of Minnesota. Price, $4.00. Pp. 268. Philadelphia: Saunders, 1955.

Cardiac Diagnosis—A Physiologic Approach. ROBERT F. RUSHMER, M.D., Associate Professor of Physiology and Biophysics, University of Washington Medical School. Price, $11.50. Pp. 447, illustrated. Philadelphia: Saunders, 1955.

Basic Surgical Skills—A Manual with Appropriate Exercises. ROBERT TAUBER, M.D., F.A.C.S., Assistant Professor of Gynecology and Obstetrics, the Graduate School of Medicine, University of Pennsylvania; Senior Attending Physician in Obstetrics and Gynecology, The Albert Einstein Medical Center; Chief in Gynecology of the Kensington Hospital; Diplomate of the American Board of Obstetrics and Gynecology. Price, $3.75. Pp. 75, illustrated. Philadelphia: Saunders, 1955.

Textbook of Endocrinology, 2nd ed. Edited by ROBERT H. WILLIAMS, M.D., Executive Officer and Professor of Medicine, University of Washington Medical School, Seattle. Price, $13.00. Pp. 776, illustrated. Philadelphia: Saunders, 1955.

Office Procedures. PAUL WILLIAMSON, M.D. Price, $12.50. Pp. 412, illustrated. Philadelphia: Saunders, 1955.

BOOK REVIEWS

Pathology for the Surgeon, 7th ed. Edited by William Boyd, M.D. Edin., Dipl. Psychiat. Edin., F.R.C.S. Canada, F.R.C.P. Lond., M.R.C.P. Edin., F.R.S. Canada, LL.D. Sask., D.Sc. Man., M.D. Oslo, Lecturer on the Humanities in Medicine, The University of Toronto; Visiting Professor of Pathology, the University of Alabama; Formerly Professor of Pathology, The University of Manitoba, The University of Toronto and The University of British Columbia. Price, $12.50. Pp. 737, with 547 illustrations, including 10 in color. Philadelphia: Saunders, 1955.

The first edition of this book in 1925, under the title of "Surgical Pathology," was justly acclaimed as a noteworthy contribution to the presentation of the study of organs and tissues removed from the living body. For the last 30 years this book has borne that title, but with the seventh edition the author has changed the title to "Pathology for the Surgeon." In rewriting this volume the author states that he has in mind the graduate rather than the undergraduate, the clinician or surgeon rather than the pathologist, and in so doing he attempts to explain the mechanism by which pathologic lesions produce the clinical picture of disease in addition to presenting the descriptions of the pathologic lesions themselves. The title of the first chapter is "The Surgeon and the Pathologist," and it is here where the author explains the reason why the seventh edition has a change in title. There is also a dissertation on the evolution of surgical pathology as a specialty as well as a plea for the proper relationship between the surgeon and the pathologist.

The material is well organized, with a division into two sections. In the section on general surgical pathology, emphasis is placed on the practical aspects of the subjects presented. These include inflammation and repair, wound infections, the granulomata, gangrene, shock and burns, coagulation, thrombosis and embolism, and the general pathology of tumors. An example of a change from the previous editions is seen in the chapter on gangrene. Heretofore, the author had defined gangrene as "death of a part en masse." He corrects himself in this edition by stating that "only blindness on the part of the author (and his readers) prevented the inadequacy of this definition from becoming apparent. Were it correct, then every infarct would be an example of gangrene. We must not confuse gangrene with necrosis and infarction, and the feature which distinguishes the first from the other two is putrefaction. The putrefactive element may be dramatic and easily recognized as in moist gangrene, or it may not be obvious as in dry gangrene. But in every case of gangrene there is not only death of the part but infection with saprophytic putrefying bacteria which add rottenness to death."

The second section deals with special surgical pathology, and here are covered the various systems of the body. Despite the brevity in spots, the book is well written and very readable throughout. The numerous illustrations add much to the study of the text. The student, the younger surgeon, particularly the one who has to refresh his memory of pathology for the Specialty Boards in the United States and those of the Royal College of Surgeons, and even the experienced surgeon would profit by having this book in his library.

William D. Byrne, M.D.

Clinical Biochemistry, 5th ed. Abraham Cantarow, M.D., Professor of Biochemistry, Jefferson Medical College; Formerly Associate Professor of Medicine, Jefferson Medical College and Assistant Physician, The Jefferson Hospital, Philadelphia, and Max Trumper, Ph.D., Formerly Lecturer in Clinical Biochemistry and Basic Science Coördinator, Naval Medical School, National Naval Medical Center, Bethesda, Maryland. Price, $9.00. Pp. 738, with 54 figures. Philadelphia: Saunders, 1955.

The term "biochemistry" has held—and continues to hold for many physicians—a certain frightening significance. For it conjures up a mind-picture of intricate formulae, of ions skittering hither and yon through a maze of body compartments, and of amazingly complex metabolic processes proceeding in some mysterious fashion toward the end result of keeping the human organism in a state of optimal function.

The word "clinical," however, holds no such horrors, for this brings to mind the everyday challenge to the physician to come to grips with specific disease entities with which he has a reassuring familiarity. The title of the fifth edition of "Clinical Biochemistry," which lumps together in its title both of these terms, conveys to the physician immediately that this volume is not an esoteric treatise, but rather a valuable ally written to aid the doctor in his task of practicing "clinical medicine."

The authors state: "As in previous editions, no attempt has been made to include material that has no relevance to the biochemical approaches to the diagnosis or management of clinical disorders." This is the keystone of the method of presentation, and the authors do not fail those who place their faith in the fact that this book will, indeed, supply them with information regarding *clinical* aspects of biochemistry.

For those who have had the pleasure of previous access to an earlier edition of this work, no recommendations need be made. They know that whether they face currently a problem related to acid-base balance, the endocrine system, plasma protein derangements, chemical abnormalities in diabetes mellitus, or a hundred and one other fields, a succinct discussion will be found within the pages of "Clinical Biochemistry."

This fifth edition is not a "patched up" version of the 1949 edition. It has been virtually rewritten, and much new material has been added in such vital sections as those on the endocrine system, renal and hepatic function, potassium metabolism and acid-base balance. Diagnostic tests in a number of disease states are discussed critically and clearly. Basic physiologic processes are reviewed to point up the significance of "blood chemistry" findings and testing procedures. And, most importantly, the index is just as complete and usable as in the the previous edition.

The authors, in addition to covering an extremely wide expanse of material with a minimum of word-wastage, have that happy faculty of being able to present their material in a fashion which can be well understood by those in all stages of their medical careers—from student to medical academician. The clear, uncluttered method of presentation, their exploration of areas of controversy in an impartial and complete manner, and their constant attention to the clinical aspects of their material make this book one to which the physician will make many a rewarding trip.

In short, this volume is one which will gain no dust on the book-shelf of any person engaged in the study or practice of modern medicine. Drs. Cantarow and Trumper are to be complimented for maintaining again the high quality which has led to their previous editions being ranked as among the best reference books in the field of clinical biochemistry.

KENNETH M. MOSER, M.D.

The Sane Society. ERICH FROMM. Price, $5.00. Pp. 370. New York: Rinehart, 1955.

To understand what is sick with society is important background for the practicing physician trying to treat ill individuals in that society. Erich Fromm, the psychoanalyst, has written a brilliant, challenging, masterful analysis of this enormous subject.

He not only depicts what he believes to be wrong, but he offers solutions and cures. He has the same powerful grasp of what constitutes a sane society as he does of its antithesis. Surely physicians have an enviable opportunity to help in carrying out some of these suggestions, and a great deal to gain for the welfare of their patients.

It is laboring the obvious, perhaps, to tell most physicians what is wrong with our society. But let it be said that in regard to Communism vs. Democracy, while we do not want to ignore our differences, let us not lose cognizance of some of the dangerous similarities. While we deplore the deification of the state and of power in authoritarian countries, what are we doing about "the all-pervading alienation which threatens the spiritual quality of man" in our own society, namely, the deification of the machine and of material success?

Erich Fromm sees man as the loser in his fight against automation, in his need to pursue his own integrity against the forces of robotism. While the author is pessimistic, he is not hopeless, and he offers specific remedies. Foremost is fulfillment of basic material needs for everyone in the whole world, no needless separation of work from the rest of a man's life, co-management of industry by capital and labor, town meetings to discuss political questions, art in the life of everybody, etc. Thus the alternative to war and robotism would be "humanistic communitarianism." It is a problem not of sharing profits, but of sharing work and sharing experience.

Whether one agrees with the author or not makes no difference as far as the importance of this book is concerned. It dazzles the imagination to think what could be brought about if more of us put our thought, time and attention on the subject of what kind of society is needed to create real, whole, as-effective-as-possible human beings, each one realizing his greatest potentiality in the time and place of his existence.

MILLICENT B. YATER

Handbook of Pediatrics. HENRY K. SILVER, M.D., Associate Professor of Pediatrics, Yale University School of Medicine, New Haven, Connecticut; C. HENRY KEMPE, M.D., Assistant Professor of Pediatrics, University of California School of Medicine, San Francisco, California; AND HENRY B. BRUYN, M.D., Assistant Professor of Pediatrics and Medicine, University of California School of Medicine, San Francisco, California; Assistant Clinical Professor of Pediatrics, Stanford University Medical School, San Francisco, California. Price, paper, $3.00. Pp. 548, with 33 illustrations and over 100 tables and graphs. Los Altos, Calif.: Lange, 1955.

This compact manual is one of a series of handbooks by Lange Publications. The book very adequately serves its purpose as a rapid reference, with regard to both diagnoses and treatment of pediatric diseases. It is written entirely in outline form and contains a large number of extremely useful tables of differential diagnosis, drugs, and normal values. There are large sections of the book devoted to descriptions of the more common pediatric procedures and laboratory tests with their interpretations. The treatise on fluids and electrolytes is a complete guide for adequate management. The authors have successfully incorporated a number of present-day concepts with regard to choice of antibiotics and uses of some of the newer drugs.

In addition to other features the major portion of the book very thoroughly lists the main points with regard to clinical findings and management of all the common pediatric disorders, including sections on skin, eye, ear, nose and throat. The index is complete and a subject can be readily found when needed. This book would be extremely valuable to the student, intern, resident or busy practicing physician. It is small in size and easily carried in a coat pocket or bag.

Gerald P. Falletta, M.D.

Surgical Forum—Proceedings of the Forum Sessions, Fortieth Clinical Congress of the American College of Surgeons, Atlantic City, N. J., November, 1954. Committee on Forum on Fundamental Surgical Problems: Harris B. Shumacker, Jr., M.D., F.A.C.S., Indianapolis, *Chairman;* J. Garrott Allen, M.D., F.A.C.S., Chicago; Bradford Cannon, M.D., F.A.C.S., Boston; Warren H. Cole, M.D., F.A.C.S., Chicago; Robert E. Gross, M.D., F.A.C.S., Boston; J. Albert Key, M.D., F.A.C.S., St. Louis; C. Hunter Sheldon, M.D., F.A.C.S., Pasadena; Howard C. Taylor, Jr., M.D., F.A.C.S., New York; Samuel A. Vest, M.D., F.A.C.S., Charlottesville. Price, $10.00. Pp. 851, with illustrations. Philadelphia: Saunders, 1955.

"Surgical Forum" is a compilation of papers that were selected for presentation at the Fortieth Clinical Congress of the American College of Surgeons at Atlantic City, New Jersey in November, 1954. This volume, the fifth and largest in a series that began in 1950, amply attests to the expanding experimental horizons of surgery. Probably by no other single book can one be so impressed with the biochemical, physiological and biophysical challenges offered and accepted by the modern surgeon.

The book proper is subdivided into nine general sections, each introduced with commentary by men like Warren Cole, Carl Moyer and Harris B. Shumacker. The first section, which encompasses the greatest number of papers and perhaps the most spectacular, includes contributions concerning Heart and Great Vessels, Blood Vessels and Circulation, and Vascular Grafts. Work aimed at safe, open operation on cardiac chambers, including heart and lung apparatus, and cross-circulation are most impressive. The other subdivisions are related respectively to Esophagus, Stomach and Intestine; Liver and Pancreas; Nutrition, Body Fluids and Metabolism; Steroids and Cancer; Anesthesiology; Burns; Shock and Wounds; and Plastic Anatomic Cast.

The papers presented certainly point the trend of surgical experimental effort in America and, as such, augur a healthy future. In light of the controversial nature of some of the works, much might have been gathered by further discussion of some of the papers. However, such would be beyond the scope and purpose of this volume.

Anyone interested in the evolution of American Surgery must be familiar with "Surgical Forum." Surgeons as well as men in training in surgery and the surgical specialties will read it with enthusiasm and treasure it as a ready reference book of surgical progress in 1954.

Linwood L. Rayford, M.D.

RICHARD THOMAS WEST, Ph.B., M.D.
(1871–1955)

Dr. R. Thomas West, Washington urologist, a Life member of the District of Columbia Medical Society, died, September 19, 1955, at Doctors Hospital, where he had been a patient for several weeks.

Dr. West was born in Anne Arundel County, Maryland, September 24, 1871, the son of Henry P. West, a Methodist minister, and Mary Swan West. Dr. West was educated in the public schools of Maryland and attended the Pennington Seminary in Pennington, N. J. He received the degree of Bachelor of Philosophy from Dickinson College at Carlisle, Pa. in 1897. Following his graduation from Dickinson College, Dr. West taught at Emerson Institute and Rockville High School before he enrolled at George Washington University for the study of medicine. He received his medical degree in 1905. The following year he served as extern at Emergency and Children's Hospitals.

After a few years of general practice Dr. West went to Boston to study urology under Dr. John H. Cunningham. He served on the staff of Garfield Memorial Hospital from 1911, first as associate in urology, then as visiting urological surgeon, the latter from 1940 to 1946. Since then he had served on the staff as consultant in urology.

His offices were at 1835 Eye Street, N.W., where he was associated for many years with the late Dr. Francis R. Hagner, well known urologist. Last year his health necessitated his retirement from practice, but even so he treated a few patients at his home at 3011 Dumbarton Avenue, N.W.

Dr. West was a member of the American Medical Association and the American Urological Society. He became a member of the Medical Association of the District of Columbia, which later amalgamated with the District Medical Society, in 1908, and a Life member of the Society in 1949. He was a member of the Washington and Columbia Country

Clubs, where he enjoyed golfing, his favorite recreation.

He is survived by his wife, Mrs. Ella Henderson West.

ELLIOTT ALBERT HUNT, D.D.S.
(1885–1955)

Dr. Elliott A. Hunt, Associate member of the District Medical Society, died suddenly, July 29, 1955, at his home, 1890 Redwood Terrace, N.W. His offices were at 1801 Eye Street, N.W.

Dr. Hunt was born, January 13, 1895, in Newark, N. J. He received his doctorate in dental surgery from George Washington University School of Dentistry in 1919. The following year he served on the staff of the George Washington University School of Dentistry and during the same year he was attending dentist at the Columbia Institution for the Deaf.

Dr. Hunt was a member of the American Dental Association and the District of Columbia Dental Society. He was elected to Associate membership in the District Medical Society in 1930.

His wife, Mrs. Josephine Hunt, survives him.

Stethoscope with Two Chest Pieces—Morrell

(*Continued from page 591*)

SUMMARY

1. A method has been described for auscultation of the heart and lungs with the use of a stethoscope with 2 chest pieces.

2. Results of chest examination of 107 patients with such a stethoscope have been presented and discussed.

3. Applications of the instrument and suggestions for further study have been outlined.

8 Oxford Street
Chevy Chase 15, Maryland

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Withering and Digitalis—Nestor

(*Continued from page 596*)

Withering suffered from pulmonary tuberculosis which finally undermined his health to the point that he chose to retire from active practice in 1783. Over the years his illness grew worse and he eventually became so dyspneic that even writing was difficult for him. He died on October 6, 1799 after 25 years of illness and was buried in the old church at Edgbaston. In this church is a monument inscribed in his name and encircled with the Witheringia and the purple foxglove of which he wrote.

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Woman's Auxiliary Notes

(*Continued from page 610*)

effort—and to Miss Carol Channing, who praised us as being "a wonderful audience."

In the glamour of our fashion show and the excitement of our theatre benefit it should not be overlooked that our Auxiliary members gave their customary aid to the Medical Society during the 25th Annual Scientific Assembly. Our President represented the Auxiliary at the Medical Society Luncheon and the Secretaries' Dinner. The huge task of sending out all the invitations was again ably handled by our Correspondence Committee.

Mrs. I. Phillips Frohman
Publicity Chairman

MEDICAL ANNALS
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THE COMPLICATIONS OF CHLORPROMAZINE THERAPY*†

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CHLORPROMAZINE is a phenothiazine derivative chemically related to the antihistaminic "phenergan." It was synthesized in France in 1950 and studied in the course of a systematic survey of antihistaminics and related compounds (figure 1). It was quickly found to be a powerful drug with numerous physiologic effects. Because of its large variety of actions it was named Largactil in Europe but is called Thorazine in the United States. Many of its effects have proved clinically useful for various indications. When it is used for any one of its actions, the others often manifest themselves as undesirable side-effects. Hence a brief review of the physiologic effects of chlorpromazine is necessary as a background for understanding its side-effects. It has become customary to distinguish side-effects from complications, the complications being undesirable actions which are more serious and are not merely exaggerations of the physiologic effects.

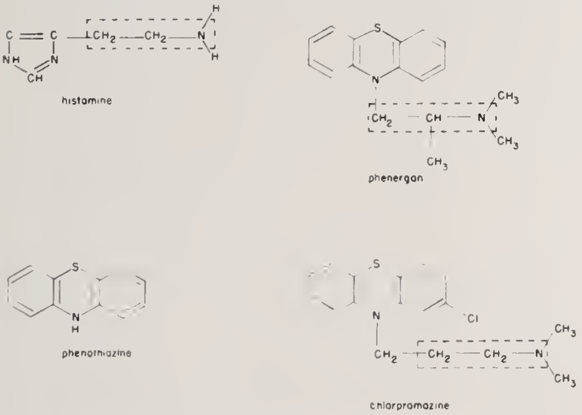

FIG. 1. Structural formulae of chlorpromazine and related compounds.

PHYSIOLOGIC EFFECTS

The physiologic effects of chlorpromazine were carefully elucidated in France before the drug was available in the United States.[1] Chlorpromazine is mainly a depressant drug, capable of depressing numerous physiologic functions. Its most important sites of action are certain levels of the nervous system as summarized in table 1.

Chlorpromazine inhibits transmission at sympathetic ganglia and diminishes responsiveness to adrenal medullary hormones. Vasodilatation results, with usually some fall in blood pressure. Foster et al[2] believe the vasodilatation to be due to local as well as central effects. Courvoisier et al[1] have demonstrated a selective vasculotropic effect besides its adrenolytic properties; e.g., it inhibits vasoconstriction due to posterior pituitary hormone as well as epinephrine and norepinephrine.

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TABLE 1

Physiologic Actions of Chlorpromazine

A. Neurologic
  1. Sympatholytic, adrenolytic, vasodilator
  2. Parasympatholytic
  3. Medullary—antiemetic
  4. Diencephalic—sedative, emotional tranquilizer
  5. Cortical—little effect
  6. Peripheral—local anesthetic, muscular relaxant
B. Metabolic
  Hypometabolic, hypothermic, and hyperthermic
C. Cardiovascular
  Directly vasodilator and hypotensive
  Antifibrillatory
  Capillary permeability decrease
  Clotting delay
D. Respiratory
  Weakly analeptic
E. Miscellaneous
  Antihistaminic
  Antispasmodic
  Increased appetite and weight gain

The drug manifests weak parasympatholytic activity. It inhibits the cardiac response to stimulation of the vagus nerve or injection of acetylcholine.

The effect on the medulla is best exemplified by the drug's antiemetic action. Brand et al[3] have shown that it inhibits vomiting due to those drugs which directly stimulate the chemoreceptor trigger zone (CTZ) for emesis, located in the medulla. Thus, vomiting due to apomorphine is inhibited, while vomiting due to direct gastric irritation, such as follows copper sulfate ingestion, is not. The possible role of the vagolytic action of chlorpromazine in this respect has not been evaluated.

The most important of the actions of chlorpromazine are those on diencephalic centers. It produces sedation with a diminution of motor activity and emotional drive. For this reason it has proven extremely valuable in psychiatry in the management of disturbed and manic patients. Depressed patients should not be given chlorpromazine. The drug prevents sham rage in decorticate cats, which demonstrates its effectiveness on centers below the cortex. The relatively slight effect of chlorpromazine on the cerebral cortex is suggested by the differences between chlorpromazine sedation and barbiturate sedation. With chlorpromazine, sedation of activity can be achieved without loss of emotional inhibition; with barbiturates, cortical depression may cause excitement through release of lower centers. If chlorpromazine is pushed to the point of drowsiness or somnolence, the patient can almost always be easily roused and maintains clarity of thought.

Some action of chlorpromazine on peripheral nerves is suggested by the marked muscular relaxation which may occur and by its effectiveness as a local anesthetic.

The non-neurologic actions of chlorpromazine seldom produce undesirable side-effects and will therefore be mentioned very briefly. Chlorpromazine diminishes the metabolic rate and sometimes causes a fall in body temperature.[1, 4, 5, 6] It has been used in the production of "artificial hibernation" for cardiac surgery.[7, 8] It is also an effective antipyretic. With higher dosage a mild fever may occur, from 99 to 101° F. The drug produces a vasodilatation by direct action on blood vessels besides its neurogenic effect. It has weak analeptic, antihistaminic, and antispasmodic activities as well as a tendency to produce an increase in appetite and gain in weight.[4, 5]

SIDE-EFFECTS

With this background we could predict many of the side-effects of chlorpromazine therapy. The side-effects which are clinically most important are shown with asterisks in table 2.

As a result of the sympatholytic action, vasodilatation occurs and a fall in blood pressure is observed.[2, 4, 5, 9-15] This is more marked after parenteral than oral administration. If 50 mg. of chlorpromazine be given intramuscularly, almost any patient will develop a fall in blood pressure of 5 to 60 mm. Hg systolic and 5 to 30 mm. Hg diastolic. As little as 5 mg. will have the same effect if given intravenously. Upon oral therapy with 75 to 300 mg. a day, hypotension will develop in 10 to 30 per cent of cases in different series; higher dosage will lead to a fall in blood pressure of 90 per cent of cases. The hypotension during parenteral administration comes on within 30 to 40 minutes after each injection; the hypotension during oral administration, on the other hand, is usually orthostatic. Compensatory tachycardia, often with palpitation, usually accompanies the fall in blood pressure,[2, 4, 5, 9, 11, 12, 16] and there may be orthostatic weakness, dizziness and syncope.[4, 5, 6, 10, 11, 12] The fall in pressure is most marked in hypertensives, and the syncope is most marked in patients with cerebral arteriosclerosis. After several days the blood pressure usually returns to its previous level even though chlorpromazine is continued in the same dosage, but marked fluctuation in the blood pressure may continue indefinitely. Severe hypotensive attacks are uncommon. A few patients may suddenly lose consciousness and fall while walking or standing. Rea et al[13] reported on 7 patients with severe hypotension, 1 of whom later developed acute renal insufficiency. They found that "when hypotension was detected early, it was easily reversed," but "intensive therapy was required if the hypotension persisted."

TABLE 2

Side-effects of Chlorpromazine

A. NEUROLOGIC
- 1. Sympatholytic
    - Hypotension*
    - Tachycardia
    - Dizziness
    - Syncope
    - Weakness
    - Facial Pallor
    - Nasal congestion
    - Miosis
    - Disturbed visual accommodation
    - Urinary frequency
- 2. Parasympatholytic
    - Constipation
    - Dry mouth
- 3. Diencephalic
    - Lethargy and somnolence*
    - Slowing of movement
    - Slurred speech
    - Drooping eyelids
    - Potentiation of barbiturates and narcotics
- 4. Cortical
    - Mental confusion
    - Dreams

B. NON-NEUROLOGIC
- Hyperthermia

*Clinically most important

It has been suggested that patients should be kept recumbent whenever chlorpromazine is given orally in dosage of 50 mg. or more at a time, or parenterally in any dosage. Blood pressure determinations should be made frequently, and if symptoms develop treatment with recumbency or Trendelenburg position is advised. Vasoconstrictor drugs may be tried in severe cases, but chlorpromazine interferes with the pressor response to norepinephrine.

Lehmann and Hanrahan[5] note a distinct pallor in most subjects, perhaps related to the hypotension and other autonomic changes. Moyer et al[6] also describe a chalky pallor of the skin with large doses, sometimes associated with increased secretion of sebum.

Nasal congestion reminiscent of that seen with reserpine has been noted.[4, 5, 6] Moyer et al[6] recommend the use of antihistamine nose drops for relief (which presents the interesting spectacle of an antihistamine drug serving to negate a side-effect of another antihistamine).

Visual accommodation is disturbed with high doses and miosis is not uncommon.[5, 6] A few patients report transient diplopia.[6] An occasional patient complains of urinary frequency, particularly nocturia.[6]

Among the parasympatholytic side-effects may be mentioned occasional constipation[4, 5, 6, 15] and dryness of the mucous membranes of the mouth, nose, and upper respiratory tract.[4, 5, 6, 9, 10, 12, 14-17] Dry mouth is a complaint in from 10 to 20 per cent of cases; the use of chewing gum is suggested by Moyer et al.[6] The dryness is accompanied by a bitter taste in the mouth in some cases and in others increases the susceptibility to infection of the upper respiratory tract.

The effect of chlorpromazine on diencephalic and other subcortical centers is probably its most important action.[4, 5, 6, 12, 14-20] The resulting sedation and inhibition of emotion provide the basis for the widespread use of chlorpromazine in psychiatry. The degree of sedation may vary from occasional mild lethargy with low dosage, through marked drowsiness and intermittent somnolence, to deep sleep with high dosage. Parenteral administration produces greater sedation than oral. Reflexes may be unaltered or slightly depressed. The electroencephalographic pattern is that of normal sleep. The patient is always easily roused and is clear-minded; no interference with nocturnal sleep occurs no matter how much of the daytime is spent in sleep. Slurred speech, slowness of movement, and drooping eyelids have been noted by Bower.[18] Sedation is most marked when treatment is first begun. After a few days it clears up even without reduction in dosage. When sedation is distressing in ambulatory patients, caffeine or dexedrine is effective. With particularly severe symptoms the dosage may have to be reduced or the drug discontinued.

It should be noted that chlorpromazine potentiates the action of narcotics and barbiturates.[1] This has proven useful in the management of intractable pain, but it also raises the danger of oversedation unless the dose of the other drug is reduced when chlorpromazine is started.

It has been mentioned that chlorpromazine appears to have little effect on the cerebral cortex. A few exceptions may be pointed out. An occasional patient develops frequent vivid dreams of intensely emotional content.[15] Rarely a patient becomes confused on chlorpromazine. Sadove[14] describes 1 such patient and Moyer et al[6] 4. Two of the latter were taking 1,600 mg. of chlorpromazine daily; with reduction of the dosage, the confusion cleared rapidly.

The medullary and peripheral nervous actions of chlorpromazine appear not to cause undesirable side-effects.

Of the non-neurologic effects of chlorpromazine, the only one which ever causes troublesome side-effects is the change in body temperature. Hypothermia is of no concern, but quite often there is a fever spike or temporary continuous fever without a leukocytosis or infection.[4, 5, 6, 9] A rare patient may have chills and some show an increased sedimentation rate.[21] In some patients, on the other hand, fever is of serious concern since it may herald the onset of jaundice. This type of fever comes on after several weeks of treatment, in contrast with the early onset of the benign hyperthermia.

Complications

There are a number of complications of chlorpromazine therapy unrelated to the physiologic actions of the drug (table 3).

Skin eruptions occur in from 3 to 10 per cent of cases, usually in the second or third week of therapy and most often but not always in patients with an allergic history.[4, 6, 15, 17, 22, 23, 24] Several different types of skin reaction may occur. The most common is a drug eruption in the form of a maculopapular rash, either localized to neck and chest or generalized, although erythema multiforme, acneiform or exfoliative dermatitides have been observed. Itching is usually intense. If the drug must be discontinued, the rash usually clears within a week. Reinstitution of therapy does not lead to recurrence of the rash. Antihistaminics are of no value.

Another type of skin eruption was recently reported by Lewis and Sawicky.[23] They describe a severe, protracted contact dermatitis in 2 nurses who had been handling chlorpromazine for several months. Patch tests were positive. An attempt to sensitize 50 volunteers failed; apparently sensitization requires long-continued contact. Nurses who handle the drug are advised to wear rubber gloves.

Cohen[4] mentions photosensitization as a late effect of chlorpromazine therapy, and urticaria or edema has been noted by a number of authors.[4, 5]

TABLE 3

Complications of Chlorpromazine Therapy

A. DERMATITIS
  1. Drug reaction
  2. Contact dermatitis
  3. Photosensitization
  4. Urticaria, edema
B. JAUNDICE
C. PARKINSONISM
D. ALLERGIC REACTIONS
  1. Urticaria
  2. Asthma
  3. Anaphylactoid
E. AGRANULOCYTOSIS
F. LOCAL REACTIONS
  1. Pain at site of injection
  2. Gastrointestinal disturbances with oral administration
G. MISCELLANEOUS REACTIONS
  Ataxia, oliguria, dyspnea, pruritus, increased sexual urge, breast engorgement, pneumonia

Jaundice, which is less frequent than skin eruptions, constitutes the most important complication of chlorpromazine therapy.[4-6, 9, 10, 11, 15, 19, 22, 24-30] Its incidence varies from less than 1 per cent up to about 5 per cent in the various reported series and appears to be independent of the dosage used. It may develop in patients with previously normal livers. It is not settled whether previous liver damage predisposes to jaundice when the drug is given. In an occasional jaundiced patient liver biopsy shows evidence of preëxisting chronic liver damage; on the other hand, no jaundice occurred in a series of 153 alcoholic patients, 27 of whom had Laennec's cirrhosis.[11]

The jaundice rather consistently starts after 3 weeks of chlorpromazine therapy and is usually preceded by several days of fever and malaise. Subsidence of the fever is followed by the jaundice, with bile in the urine, clay-colored stools, pruritus, and often right upper quadrant tenderness. Liver function studies reveal an obstructive type of jaundice with elevated direct-reacting bilirubin, bromsulfalein retention, elevated alkaline phosphatase and cholesterol, and normal cephalin flocculation, thymol turbidity, zinc sulfate, colloidal gold, cholesterol esterification, prothrombin time, and serum proteins. Occasionally very slight changes in cephalin flocculation and serum proteins have been observed in patients who do not become jaundiced. It should be noted that many of the usual tests for bile in the urine give false positive results because of reaction with chlorpromazine itself. The Hammarsten or Huppert-Nakayama tests may be used accurately with patients receiving chlorpromazine. Liver biopsy shows distention of bile canaliculi and sometimes cellular infiltrations.[15, 24, 27, 29] The hepatic parenchymal cells usually show only minor changes. Several patients have undergone exploratory laparotomy because of the obstructive jaundice, and in all the biliary tract has been entirely normal.[24, 27, 29]

Development of jaundice is an indication for discontinuing chlorpromazine and instituting supportive therapy. The jaundice almost invariably clears up within several weeks. The icteric state may rarely last for several months and 2 fatal cases have been recorded,[25, 27] 1 of which was complicated by agranulocytosis.

Parkinsonism develops in perhaps 1 per cent of the cases in reported series,[4, 6, 10, 22] generally in patients receiving high dosage, above 400 mg. a day for about 3 weeks. The syndrome may be mild and consist of slight muscular rigidity or rest tremor, or it may be advanced, with typical masked facies, cogwheel rigidity, tremor, stooped posture and loss of associated movements. The electroencephalogram remains normal. Following withdrawal of the drug, the syndrome clears up in 1 or 2 weeks in mild cases and up to 1 or 2 months in advanced cases. Paradoxically, Lehmann[10] reports that chlorpromazine led to an improvement in 4 patients with paralysis agitans.

Allergic reactions are seen occasionally. Urticaria has already been mentioned. Lehmann and Hanrahan[5] report urticaria or asthma in 13 per cent of their series, and Cohen[4] mentions 1 case of anaphylactoid reaction. The occurrence of allergic reactions to an antihistaminic drug is worth noting.

Agranulocytosis has been reported by Lomas[31] and by Boleman.[32] The former's patient recovered, but the latter's died of an overwhelming infection with *Pseudomonas aeruginosa*. It should be noted that Boleman's patient had also taken phenolphthalein (Ex-Lax). Hodges and LaZerte[27] report another patient who died of jaundice and agranulocytosis. However, this case must also be regarded with suspicion since the patient had had a marked lymphocytosis, and leukemia had been suspected prior to the exhibition of chlorpromazine. Cohen[4] reports rare instances of leukopenia and eosinophilia but no case of agranulocytosis. Agranulocytosis is thus a very rare complication of chlorpromazine therapy.

Local reactions are usually of minor concern. Intramuscular injection sometimes causes mild pain and tenderness at the site of injection.[15, 16] The oral route sometimes causes nausea, vomiting, epigastric distress or a burning sensation in the esophagus.[4, 5, 6, 10, 14] As previously noted, the antiemetic action of the drug does not prevent nausea and vomiting due to gastric irritation.

A few rare miscellaneous complications need only be mentioned. Ataxia, oliguria, dyspnea,[14] pruritus and increased sexual urge[4] have been described. Engorgement of the breasts with secretion of colostrum occurs in some female patients without change in the menstrual cycle.[4, 6] Fatal pneumonia in 2 cases was attributed by Cohen[4] to chlorpromazine-induced hypersomnolence.

The over-all picture is that chlorpromazine is a powerful and very useful drug with a wide variety of actions. Since it has an equally wide variety of side-effects and complications, one should not prescribe it for trivial indications.

SUMMARY

After a review of the physiologic effects of chlorpromazine, the undesirable side-effects and complications have been discussed. The major side-effects are hypotension, lethargy and somnolence. The most important complications are dermatitis, jaundice of obstructive type, and Parkinsonism. Chlorpromazine is a very useful drug but must be administered with care and only for adequate indication.

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INTRAHEPATIC BILIARY OBSTRUCTION DUE TO CHLORPROMAZINE

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THE DIFFERENTIAL DIAGNOSIS of jaundice has always been a difficult problem for the clinician. With the advent of new and more specific laboratory tests of liver function it has been possible to determine alterations of liver cell metabolism or excretion and to differentiate better between intrahepatic and extrahepatic types of jaundice. It is, of course, important for the surgeon to distinguish between the two types of jaundice, since little is gained by exploration of the patient with intrahepatic disease.

Extrahepatic obstructive jaundice due to common duct stone or carcinoma of the bile ducts or the pancreas is a prime indication for surgical exploration. Liver function studies reveal biliary obstruction with elevated bilirubin and alkaline phosphatase and little or no evidence of liver cell damage. However, if the obstruction has been present for a considerable period of time, the liver cells may show increasing evidence of damage due to back pressure with bile stasis and cholangitis.

Intrahepatic jaundice is usually due to liver cell damage. The most common cause is some form of hepatitis, generally of viral origin. However, severe liver cell damage may be caused by certain chemicals or drugs. This liver cell damage is revealed by abnormal determinations of the cephalin flocculation, thymol turbidity, prothrombin time and albumin-globulin ratio. In such cases exploratory laparotomy is of little or no value, except perhaps for confirmation of diagnosis by liver biopsy, and further harm may be done the injured liver from the additional insults of surgical trauma and anesthesia.

Surgeons have generally thought that exploration was indicated in any patient showing laboratory evidence of biliary obstruction without evidence of severe liver cell damage. However, in recent years there has been an increasing number of cases reported with blockage of the intrahepatic rather than the extrahepatic ducts and little or no liver cell damage. This intrahepatic bile duct obstruction has been found to be caused by certain drugs, such as arsphenamine[1] and methyltestosterone[2] and more recently chlorpromazine. The laboratory tests are similar to those seen with extrahepatic obstruction. Liver biopsy reveals bile stasis with resulting formation of bile casts in the capillaries of the liver lobules. There is usually no evidence of liver parenchymal cell damage and little or no inflammatory reaction in the periportal fields. In simple extrahepatic biliary obstruction the changes are almost identical unless there has been infection of the bile ducts which would cause inflammatory cell infiltration in the periportal fields. Microscopically it is easily differentiated from cholangiolitic cirrhosis. The features of this condition are of a chronic nature with fibrosis, ductal proliferation, and both histiocytic and lymphocytic infiltration in the periportal fields.

Chlorpromazine has been studied in Europe since 1951. It was found to have special use in psychotic patients by relieving apprehension and anxiety and great usefulness in controlling nausea and vomiting associated with disease, use of drugs and radiation. Chlorpromazine (Thorazine) has been used with increasing frequency in the United States for the past 2 years, and there have been reported several side-effects or complications, including jaundice. Sporadic cases of jaundice were reported in Europe, but an increasing number are being reported in this country.

The true incidence of jaundice in patients receiving chlorpromazine is not known. Lomas et al[3] reported 800 patients who had been treated with chlorpromazine for psychotic disorders, of whom 1.4 per cent developed jaundice. The early reports usually concerned patients with transitory jaundice, which cleared in a short time without sequelae. The jaundice was obstructive in type and left no residual liver damage. However, Van Ommen and Brown[4] reported 3 cases of jaundice due to chlorpromazine lasting for periods of several months, and at the time of publication 1 of the patients was still jaundiced 5 months after the onset of the illness. A fatality has been reported by Hodges and La Zerte,[5] but this case was complicated by agranulocytosis. Due to the widespread use of the drug in this country at the present time more cases of jaundice are being reported, and the clinician must keep the possibility in mind, especially when surgery is contemplated for obstructive jaundice.

The following case illustrates the difficulty in making the correct diagnosis in a patient found to have obstructive jaundice:

Report of Case*

I. C., a 67-year-old white woman, was admitted to Doctors Hospital on August 26, 1955 with the chief complaint of jaundice of 16 days' duration. The patient had been hospitalized elsewhere for a fractured left hip on July 17, 1955 and remained in that hospital for 3 weeks. The fractured left femoral neck was nailed, and the patient had an uneventful postoperative course except for occasional nausea. She was discharged on crutches (August 6, 1955) with no complaints other than anorexia and mild nausea. On August 7, 1955, the day following discharge, the patient developed acute upper abdominal pain, mainly in the epigastric region. This was accompanied by nausea, vomiting and generalized malaise. These symptoms continued for 3 or 4 days and jaundice appeared on August 10, 1955. The pain and nausea gradually disappeared at this time. As the jaundice developed, severe itching was noted and the urine became dark and the stools light in color.

A presumptive diagnosis of viral hepatitis was made, and the patient was treated with supportive measures and bed rest at home. Liver function studies done on August 18, 1955, while the patient was at home, revealed obstructive jaundice without evidence of liver cell damage (chart 1). Since the icterus did not improve, the patient was admitted to Doctors Hospital on August 26, 1955, 16 days following the onset of jaundice.

CHART 1

Liver Function Tests

Date	Bilirubin	Alkaline Phosphatase	Cephalin Flocculation	Thymol Turbidity	Prothrombin	Cholesterol	Cholesterol Ratio	Protein	Urine Uro-bilinogen	Urine Bile
8/18	9.6	16	0	1.5	100%	267	53%	6.8	0.7	Pos.
8/29	30.0	11.2	0	2.0	100%	285	41%	7.4	0.0	
9/2	15.0									
9/7	18.7									
9/13	15.0			3.0		273	42%			
9/16	10.3		0							
9/20	11.0									
9/26	8.3									
10/1	4.6									

Physical examination revealed a well-developed, fairly well-nourished white woman with deep jaundice. Scratch marks were noted on the skin. The liver was felt 3 cm. below the costal margin and had a smooth edge. There was slight tenderness in the right upper quadrant. The white blood cell count on admission was 4,300, with 52 per cent neutrophils, 47 per cent lymphocytes, and 1 per cent monocytes. Repeated liver function studies performed on August 29, 1955, 3 days after admission, revealed the same picture of biliary obstruction with increasing icterus (chart 1). A diagnosis of extrahepatic biliary obstruction was made and exploratory laparotomy performed on August 30, 1955, 3 weeks after the onset of jaundice.

The operative results were as follows:

"Under general anesthesia, a right upper rectus incision was made. Exploration revealed numerous old adhesions of the duodenum and mesocolon to the gallbladder bed, the gallbladder having been removed many years ago. The liver appeared to be normal in size and color and had a smooth surface. Palpation in the region of the pancreas and ampulla of Vater revealed no evidence of tumor mass. With careful dissection it was possible to separate the adhesions and uncover the common duct, hepatic artery and portal vein. The duct was found to be of normal size and collapsed, so that its identity was quite difficult. Upon opening the common duct only a small amount of bile escaped. Probes were placed up and down the duct and there was no evidence of obstruction. The probe passed through the ampulla of Vater and into the duodenum without difficulty. The probe could be passed proximally for a distance of 4 or 5 cm. without evidence of obstruction. A tumor mass could not be felt in the hilum of the liver. A small T-tube was placed in the common duct and brought out through the upper angle of the wound. A wedge-shaped liver biopsy was taken. A cigarette drain was placed in the foramen of Winslow and brought out through the upper angle of the wound."

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* Case of Dr. Sidney C. Cousins and Dr. Fred A. J. Geier.

Postoperatively the patient had an uneventful course, except for occasional nausea and vomiting. The T-tube in the common duct drained only a few c.c. of bile for the first 5 days. Gradually the flow increased and the tube drained 150 c.c. on the seventh day and 300 c.c. on the ninth postoperative day. The stool showed some brown color at this time also. A cholangiogram done on the ninth postoperative day revealed a normal biliary tree with free passage of dye into the duodenum. The right and left hepatic ducts were well outlined and showed no evidence of obstruction or distortion.

The report of the liver biopsy was as follows:

"Sections show a normal hepatic pattern. In the periportal area there is proliferation of the connective tissue which is infiltrated with mononuclear cells and an occasional neutrophilic cell. The central vein is empty. There is, however, marked dilatation and plugging of the bile canaliculi. There is proliferation of the terminal bile ducts which become lengthened, dilated and filled with inspissated dark brown bile. The histiologic pattern does not appear to be infectious in nature but is a lesion secondary to some other cause."

The jaundice began gradually to clear (chart 1), and the general condition improved. The last bilirubin taken before discharge on October 1, 1955 was 4.6. The patient was discharged for home convalescence, still slightly icteric, on the forty-fourth hospital day, 2 months following the onset of jaundice.

This patient had been questioned about previous therapy with chlorpromazine, but no history of such medication was elicited. However, a check was made of the hospital record during the patient's confinement for a fractured hip. This revealed that she had received chlorpromazine (Thorazine) for 5 days (July 17, 1955 to July 22, 1955). A total of 700 mg. of the drug was taken by mouth during this period.

DISCUSSION

This case is interesting in that an interval of 19 days existed between cessation of therapy with chlorpromazine and the onset of jaundice. A careful search was made for other drugs or hepatotoxic agents that would cause such liver damage and none were found. All presumptive evidence points to chlorpromazine as the cause of the intrahepatic biliary obstruction.

The history seems to be fairly typical in all these cases. Jaundice usually appears after 2 or 3 weeks of therapy. However, jaundice may develop within 24 to 48 hours following onset of therapy. The amount of drug used does not seem to be significant in the development of jaundice. Sussman and Sumner[6] report a case of jaundice developing after only 1 dose of 50 mg. of Thorazine.

Before jaundice appears patients may complain of vague aches and pains (grippe-like symptoms) and slight fever. Abdominal distress with nausea and vomiting and change in bowel habits may occur. As the jaundice develops, pruritus may become severe, and dark urine and clay-colored stools are noted. Hepatic tenderness is often seen. Laboratory tests reveal an obstructive type of jaundice with elevation of bilirubin, alkaline phosphatase and cholesterol. The urine contains bile and decreasing amounts of urobilinogen. The cephalin flocculation and thymol turbidity, albumin-globulin ratio and prothrombin time remain unaltered, revealing no evidence of liver cell damage. Occasional patients have eosinophilia. At exploration the extrahepatic biliary tract is normal with no evidence of obstruction and little or no bile present in the ducts. The biliary ducts and gallbladder are collapsed due to the lack of bile, and this helps in determining that the block is intrahepatic. Biopsy of the liver reveals blockage of the bile ducts with bile thrombi and bile stasis, especially about the central vein.

The mechanism of this intrahepatic biliary obstruction is not known. It has been suggested that the reaction is an allergic or hypersensitive one, but there is no clear evidence to this effect.[7] The change in the liver is similar to that seen following methyltestosterone and arsphenamine therapy. The liver has been found to revert to normal following disappearance of the jaundice. Biopsies in such cases reveal gradual clearing of the intrahepatic blockage,[8] and no cases have been reported of permanent liver cell damage, even following prolonged periods of icterus.

The final diagnosis of the jaundiced patient can rarely be made by history and physical examination alone. The clinician must rely on the laboratory to help differentiate between primary liver cell damage and biliary tract obstruction. Even though the diagnosis of obstruction is made, no tests are available at present to differentiate intrahepatic from extrahepatic biliary obstructive jaundice. Some pathologists[9] think that this condition can be detected by liver biopsy, which shows eosinophilic infiltration of the liver and lack of any true inflammatory reaction. However, this has not proved to be a satisfactory guide so far. Since the laboratory cannot aid in the accurate diagnosis of this condition, the problem of intrahepatic biliary obstruction must be considered in any patient with signs of obstructive jaundice. Unless a careful search is made for previous chlorpromazine therapy the condition may be overlooked and unnecessary surgery performed. A history of previous treatment with chlorpromazine followed by prodromal symptoms, fever and eosinophilia before jaundice develops, all may be helpful in establishing the correct diagnosis.

Exploration may be necessary to rule out serious causes of extrahepatic obstruction and with liver biopsy aids in establishing the correct diagnosis without question. A period of watchful waiting seems justified in the patient who develops obstructive jaundice shortly after treatment with chlorpromazine. However, if the jaundice persists or deepens over a period of 4 to 6 weeks and the diagnosis is still in doubt, exploration may be indicated to rule out serious extrahepatic disease. The danger of overlooking serious extrahepatic obstruction in a patient who has incidentally received chlorpromazine must also be considered.

SUMMARY

Intrahepatic biliary obstruction is produced by chlorpromazine in certain susceptible patients. The laboratory findings are those of obstructive jaundice. No tests are available at the present time which will accurately differentiate between intrahepatic and extrahepatic biliary obstruction. Unless the possibility of drug-induced intrahepatic obstruction is considered patients may be subjected to unnecessary exploration. The jaundice lasts for varying periods of time, sometimes months, and gradually clears without permanent liver cell damage. The possibility of serious extrahepatic biliary obstruction coincident with chlorpromazine therapy must, however, be kept in mind.

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PRACTICAL USE OF RADIOISOTOPES AS TRACERS*

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Radioactive Iodine Used to Measure Thyroid Function

This is the most popular and practical isotopic procedure used in medicine.

Preparation for test. Patients should be scheduled for the test and come into the laboratory after fasting 1 to 2 hours to assure an empty stomach.

Because the test is new and many physicians are not aware of its limitations, a brief history is taken to avoid unsatisfactory result with consequent undue expense to the patient and loss of trust in the test by the physician. The following substances interfere with thyroid function and, consequently, with its handling of the radioactive iodine:

1. Thyroid hormone, cortisone, ACTH, testosterone and estrogen all suppress thyroid function to some degree.
2. Thiocyanate blocks uptake of iodine.
3. Iodine medication, such as cough syrup and asthmatic preparations, saturates the gland and interferes with uptake.
4. X-ray procedures using iodized radiopaque dyes, such as gallbladder, intravenous pyelogram, bronchogram and myelogram procedures, also act as saturating agents.
5. Propylthiouracil, its other derivatives, and sulfonamide medication cause the gland to show increased uptake of iodine. Although they block the organic binding of iodine in the gland, they usually cause increased avidity of the gland for iodine.

Patients should be off inorganic iodine and hormonal therapy for about 1 month. Radiopaque dyes act as blockers for 6 months, or a year in some cases. Propylthiouracil and thiocyanate should be discontinued from 6 to 8 weeks before uptake is measured.

Procedure. After the history is obtained the patient is given a standard dose of I^{131}. The patient is told to fast for about 1 hour until the iodine is absorbed. Although small amounts of iodized salt do not interfere with the test, we usually advise patients to avoid extra salt, seafood, and cabbage during the following 24 hours. The patient is then told to return in 24 hours.

When the patient returns, his neck is palpated to find the thyroid. The probe is then adjusted to count for 3 minutes at the measured distance from a point just above the isthmus of the gland.

The patient's corrected counts per minute are divided by the standard corrected counts per minute (which is equal to 100 per cent of the dose) to obtain the per cent uptake by the gland.

The sternal area may be checked for substernal goiter, and lateral nodules in the neck may be checked for activity. However, metastatic thyroid tissue rarely picks up enough iodine when the thyroid gland is still present to compete with it.

After measuring uptake, a 10 to 15 ml. sample of blood is withdrawn, and a 3 ml. sample of liquid saliva is obtained.

The whole serum is counted for activity. Then a protein extraction is made, and the amount of activity in the protein fraction of the serum is obtained.

A sample of saliva of equal volume to that of the serum is then counted. We thus obtain:

$$\frac{\text{Protein-bound } I^{131}}{\text{Whole serum } I^{131}} = \text{Per cent (conversion ratio)}$$

$$\frac{\text{Saliva } I^{131}}{\text{Protein-bound } I^{131}} = \text{Per cent (saliva ratio)}$$

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* Delivered at the 25th Annual Scientific Assembly of The Medical Society of the District of Columbia, October 10, 1955.

An additional determination which we do not do as a routine is the urinary iodine excretion. This is done simply by measuring an aliquot of a 24-hour specimen to determine the total amount of activity excreted in 24 hours. This value is compared with the total activity of the standard that is determined by measuring an aliquot of the standard in the well counter. The per cent of the dose administered that is excreted is thus obtained.

Interpretation. Per cent uptake is obviously a measure of the avidity of the gland for iodine and is, of course, elevated in a gland that is hyperfunctioning.

Conversion ratio is likewise obvious since the gland actively functioning turns inorganic iodine over rapidly into protein-bound iodine.

The salivary iodine was first discovered as a measure of thyroid function by Thode, Jaimet and Kirkwood[1] in Ontario, Canada. They explained that the test was dependent on an enzyme, tyrosine iodinase, present in the salivary glands. They postulated some inverse functional arrangement between thyroid function and salivary gland function. This theory was later refuted by Freinkel and Ingbar[2] who showed that the ratio was really dependent on the ratio of circulating protein-bound I^{131} to inorganic I^{131}. If most of the I^{131} is protein-bound, as would occur in hyperthyroidism, then little would be secreted by the salivary glands, since that which they secrete has been proven to be the inorganic form. Consequently, the ratio of salivary activity to plasma protein-bound activity would be low. However, if the PBI^{131} were low, as would occur in hypothyroidism, the salivary glands would have more inorganic I^{131} to secrete and the latter would be high. So the test really measures in an indirect manner the amount of I^{131} not picked up or converted to PBI^{131} by the thyroid gland.

The urinary I^{131} measures, of course, that iodine not retained by the system. It is sometimes used in cases of cancer of the thyroid where presumably all the tumor has been eradicated. If large amounts of I^{131} are still retained, presumably there is occult functioning tumor tissue in the body and therapeutic I^{131} should be given. Actually this test does not work too well since up to 10 per cent of a tracer dose may remain unaccounted for even in the normal individual.

There is some overlapping between values when it comes to actually interpreting the results obtained. I have used the following chart in which the values obtained are compared with the other tests of thyroid function.

THYROID PROFILE CHART

	% I^{131} Uptake	% PB I^{131}	Saliva I^{131}	Chem. PBI	BMR	Cholesterol
Hyperthyroid	50	50	40	8.0	+15	150−
Euthyroid	40	40	160	7.8	+10	175
	15	15	235	4.0	−10	
Hypothyroid	10	10	338	2.5	−15	250+

It will be noted that there are wide zones on each side of euthyroidism where values are borderline and must be interpreted along with clinical manifestations, as are all laboratory tests. There perhaps should also be some overlapping into the euthyroid zone, but this is more ill-defined. I have found the salivary iodine to be of value only in interpreting cases of hypothyroidism. High values above a ratio of 338 are much in favor of hypothyroidism, whereas values in the lower ranges occur in euthyroidism as well as in hyperthyroidism.

CIRCULATORY STUDIES WITH ISOTOPES

Quimby and her associates[3] used radioactive sodium (Na^{24}) to study circulation. End window Geiger tubes were placed over the sole of each foot, and the Na^{24} was injected into an arm vein. The rate of its appearance and its rate of build-up, as measured graphically by a rate meter, determined the circulatory patency. In constrictive vascular disease it was slow as compared to normal, whereas in inflammation, hyperthyroidism, or following nerve block, the rate was rapid.

It has been found that RISA now works as satisfactorily as the short-lived Na^{24}.[4]

The circulation time may be determined by placing a scintillation detector over the precordium and another over the hand. A 100 μc dose of RISA is then injected and its time of appearance at the 2 sites is timed. Some investigators have hooked the precordial detector to an Esterline-Angus rate meter and cannulated an artery so as to run blood through a helix arrangement in a plastic tube around another detector. With this set-up they can determine cardiac output.

TUMOR LOCALIZATION

Phosphorus-32 was the first agent to be used in localizing tumors. Because of the increased nuclear protein content of cancer cells, and perhaps also because of their increased vascularity plus the increased permeability of the vascular structures in the area of tumor, there is an increased amount of P^{32} concentrated in them. P^{32} is a beta-emitting isotope, however, and so only superficial lesions can be detected by their increased activity. P^{32} was used in localizing tumors of the breast. It did not work out too well because it failed to identify deep-seated lesions; and areas of inflammation also showed increased activity, thus giving false localization.[5]

P^{32} is still of some value in tumor localization. Brain tumors pick up significant amounts of P^{32}, and their limits can be determined after the head is opened by use of a brain probe, which is really a needlelike Geiger tube, attached to an Esterline-Angus rate meter. The area of the tumor is probed by the surgeon to determine the limits of activity and thus the borders of the tumor.

Tumors of the eye may also be detected by their increased P^{32} pickup since the surface of the eye is superficial.[6] Tumors in the anterior portion of the eye that are difficult to see may be detected by their increased radioactivity as compared to a similar area on the opposite eye. Tumors behind the retina in the posterior portion of the eye may be measured for increased activity over what would be found in a hemorrhage. The special design of the eye probe allows for insertion over the posterior areas.

Iodine is, of course, used to detect functional tumors of the thyroid. The tumor will pick up the iodine, and the gamma ray emitted by the iodine can be detected by external counting. However, not many thyroid malignant tumors are functional, and if they do not form colloid they will not pick up enough iodine to be detected. If the thyroid gland is still present, it will also compete for the iodine, and it is rare to find a tumor that can outbid it.

If a patient has a malignant thyroid tumor, the entire gland should be removed surgically. Sometimes this is enough to cause metastatic thyroid tumors to become functional, due perhaps to the stimulation of the thyrotropic hormone. Some investigators even recommend additional treatment with thyrotropic hormone so as to make the metastases function, but this has not been shown to be very effective. Incidentally, if the thyroid does pick up enough iodine it may be treated with I^{131} up to 100 mc. per dose and up to 10 doses. Therapy is, of course, another problem.

Radioactive iodinated serum albumin (RISA) has proven useful in localization of tumors by external counting. The isotope I^{131} is as radiologically detectable bound to human albumin as it is bound to the sodium salt. The I^{131} is tagged to the phenylalanine group of the human albumin. It is the same material as is used in the plasma volume determinations.

Here again the reason for the increased uptake by tumor tissue is not entirely understood but is probably on the basis of increased vascularity and increased permeability of the vascular walls in the neoplastic area, since areas of inflammation also show increased uptake.

Chou, Rust and their associates[7] reported its use in localizing brain tumors by external counting. A series of counts are taken over symmetrical areas on the head and compared. The method we use is rather simple. A pattern is counted on each side 24 hours after the patient has received a dose of 300 mc. RISA, and a differential of 15 per cent activity above the opposite side is considered significant. Note the term "differential," since some space-occupying lesions, such as a hematoma, show a decreased uptake. The procedure is simply a tool in diagnosis and the interpretation must rest on clinical judgment.

Others have reported the detection of liver metastases by determination of their uptake of RISA. The abdomen is scanned from nipple line to pubis, at intervals of 3 cm. up and down each side, 24 hours after the patient has been given about 300 mc. of RISA. Since the abdomen is not symmetrical, about 10 control patients should be run to determine the deviation from mean count over the various portions of the abdomen in a normal patient. Considerable judgment in interpretation must be given to factors such as obesity, enlarged liver, or enlarged spleen. The test has proven of value in some cases in which the liver metastases may be proven before surgery.

Iron-59

Radioactive iron can be used to study the metabolism of iron in the body, i.e., its absorption and distribution. Also, because of its incorporation into the hemoglobin complex, it is a valuable tool in studying the manufacture of red blood cells.

Moore, Dubach, et al[8] studied the intestinal absorption of ferrous and ferric iron by normal and anemic subjects with radioactive iron. They found that all subjects absorbed ferrous iron more readily than ferric (ratio 1½ to 15 times greater for ferrous iron).

The same groups in 1955 reported on the distribution of iron in humans and showed that the calculated iron excretion in the feces in normal subjects was 0.33 to 0.52 mg. per day. For iron-deficient patients it was 0.03 to 0.06 mg. per day. For a woman with hemolytic anemia it was 1.45 mg. per day and a man, 0.3 mg. per day.[9]

Many studies have been done on the turnover of iron in hemochromatosis. Bothwell et al[10] investigated 4 cases of hemochromatosis and 11 normal people. They found that the mean plasma iron turnover was significantly raised in hemochromatosis while the red blood cell turnover was normal. The percentage of the dose of radioiron used for hemoglobin formation was less in hemochromatosis. Repeated phlebotomies were well tolerated and caused a marked and sustained plasma iron turnover. The red blood cell-iron turnover appeared also to be increased, and the percentage of the dose utilized was raised, although it was still lower than normal.

Several studies[11, 12] have been done on the plasma clearance and red blood cell utilization of Fe^{59}. Since about 21 mg. of iron is a daily requirement for hemoglobin production, and that circulating in the plasma is only about 3 mg., then iron must enter the plasma from the spleen and other reticulo-endothelial spaces at the same rate at which it leaves to be incorporated into red blood cells.

The rate of iron clearance from the plasma must, therefore, represent a composite of all pathways involved and a reflection of the functional status of hematopoiesis. Exceptions are in the cases of pernicious anemia and Mediterranean anemia, in which iron is stored but not used. A more direct and accurate index of hematopoietic activity is the rate of incorporation of iron in the new-formed red blood cells.

To determine the plasma clearance, inject about 4 μc of Fe^{59} citrate and obtain samples of blood at 5, 15, 30, 60 and 120 minutes after injection. Determine the plasma activity and plot the values, on semi-log paper, against time. By extrapolating to zero time with the curve, the disappearance or turnover half-time is determined. Obtain blood samples at 3, 7, and 14 days and determine red blood cell incorporation of Fe^{59}.

Normally the plasma half-time is from 1 to 2 hours. In iron deficiency, hemolytic disorders and polycythemia in which there is a rapid turnover of Fe^{59}, it is only 0.3 to 0.5 hours. In aplastic anemia it is 2 to 4 hours. The exceptions are pernicious anemia and Mediterranean anemia, in which the turnover is also rapid, 0.3 to 0.5 hours. However, the rate of incorporation into the red blood cells tells a more accurate story of hematopoiesis. When there is about a 90 per cent uptake by the red blood cells in 1 week in normal subjects, there is a value approaching 100 per cent in 3 to 4 days in iron deficiency cases. In aplastic anemias, pernicious anemia, and Mediterranean anemia there is a slow rise over many weeks as the iron is slowly incorporated.

CHROMIUM-51

Cr^{51} when incubated with red blood cells of the patient enters the cells and is transformed into a nondiffusible form providing a reasonably permanent label. The amount used would not constitute a hazard chemically because of the high specific activity of chromium.

Red blood cells tagged with chromium can be used to measure blood volume of the patient or the red blood cell survival time of a particular patient's red blood cells. As previously discussed in the simple isotope dilution principle that was used in estimating blood volume with RISA, a similar type of procedure can be used employing the same isotope dilution principle to measure the red blood cell mass directly. After finding the red blood cell mass, and knowing the hematocrit, the total blood volume and plasma volume can be determined from these figures.

In determining the red blood cell survival, a dose of 100 μc is administered directly into the circulation, or the blood may be withdrawn and tagged. Counts are made in 24 hours* (zero time) and taken as 100 per cent survivals. This allows time for the unbound chromium to be eluted from the circulation by way of the kidneys and, therefore, will not interfere with the determinations by contaminating the red blood cell mass with plasma-containing unbound chromium. Further counts are then taken at 2- to 3-day intervals for 6 to 8 weeks. All counts are made on 3 ml. of the patient's whole blood. To calculate:

$$\%\ \text{Survival} = \frac{(\text{cpm*/ml. of 3 ml. of whole blood at ``X'' time})(e + \lambda t)}{(\text{cpm/ml. of 3 ml. of whole blood at 24 hours})} \times 100\%$$

Counts are taken in order to determine the half-time survival of the red blood cells with a 24-hour sample being considered as equal to 100 per cent survival.

Weinstein and Beutler[12] used Cr^{51} and Fe^{59} in a combined procedure to study erythrocyte production and destruction in the normal human patient and in patients with hemolytic or aplastic anemia. The markedly shortened survival time in hemolytic anemia with normal survival times in other conditions was noted. The more rapid iron utilization in hemolytic anemia and the poor utilization in the aplastic anemia were also noted.

Co^{60}-B^{12}

Because of the widespread use of preparations containing B^{12} and intrinsic factor by practitioners it has become increasingly difficult to make a positive diagnosis of pernicious anemia without allowing the patient to have a relapse. It has also become very difficult to obtain cases suitable for assay of intrinsic factors. What has been needed is a test that may be used on a treated patient that can tell us the response to intrinsic factor.

Since B^{12} tagged with Co^{60} has become available, 3 tests have been designed that measure the patient's ability to absorb B^{12} and, consequently, his possession, or lack, of the intrinsic factor.

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* If the 24-hour sample is refrigerated there would be no need to correct for decay such as is done in the above formula (e + t). All samples may be saved and counted at the same time. The usual half-time survival is about 35 to 40 days as observed by this technic.

* Counts per minute

First, Heinle, Welch et al[13] determined the fecal excretion of Co^{60}-B^{12} in patients with pernicious anemia following a standard test dose of 0.5 μg Co^{60}-B^{12} with and without added intrinsic factor.

Second was a test by Schilling.[14] An oral dose of 2 μg Co^{60}-B^{12} was followed by a flushing dose of 1,000 μg of nonradioactive B^{12} given intramuscularly. The principle is that the patient who absorbed more of the oral Co^{60}-B^{12} would excrete more in the urine when the large flushing dose was given. If little or none were absorbed, then the urine would contain very little.

The third test, described by Glass, Boyd, et al,[15] is based upon determination of the uptake of radioactivity by the liver when a potent intrinsic factor preparation is given orally to a patient with pernicious anemia together with a standard dose of 0.5 to 2 μg of radioactive Co^{60}-B^{12}.

Equivocal results have been obtained in sprue,[16] but the lack of response of the patient to intrinsic factor preparations and the good response to folic acid should aid in the diagnosis.

It has been definitely determined that the Co^{60} substance measured in the urine in the Schilling test is actually still B^{12}.[17]

The combination of radioactive Co^{60}-B^{12} with nonradioactive B^{12} must be carefully adjusted to obtain proper results, since there is evidence that the efficiency of intestinal absorption decreases with increased uptake. There may be an intestinal B^{12} acceptor similar to apoferritin for iron. When this becomes saturated, no absorption takes place. Glass, Boyd et al[18] have considered calling it B^{12} transferrin.

I^{131} FOR TESTING PROTEIN AND FAT DIGESTION

Iodine-131 blood levels were measured in normal patients following ingestion of a radioactive labeled protein (RISA) test meal.[19] The gastric emptying time was determined simultaneously. A set of similar determinations were run on another set of normal subjects following ingestion of a fat meal tagged with I^{131} (I^{131}-labeled glycerol trioleate).[20] It was found that as the meals were digested the iodine-131 was freed and entered the blood stream. A characteristic and reproducible curve of radioisotope blood levels was obtained in each case. Radiographic determination of gastric emptying was found necessary for interpretation of the data. The implications are, of course, that this might be standardized as a clinical procedure, if necessary.

UROKON

Urokon is an iodized dye which can be used for intravenous pyelograms. It can be tagged with radioactive I^{131} and has an excretion like inulin. It was felt that it would therefore be useful as a measure of renal function as well as for simultaneous pyelography. More work is being done to evaluate this test.

I^{131}-TAGGED ROSE BENGAL

A report from the University of California School of Medicine[21] indicates that radioactive rose bengal may be used to measure liver function by external counting over the liver area. It measures function without repeated venipunctures by registering on a graph the rate of dye uptake and time necessary for its excretion from the liver. The minute quantities used in the test (0.5–5 mg. dose = 5 μc I^{131}) make it practical and safe in the presence of biliary obstruction.

Preliminary results indicate that some of the common diseases of the liver have fairly typical uptake-excretion patterns which are readily distinguished from normal.

RISA FOR BLOOD VOLUME DETERMINATION

Human albumin has been tagged with I^{131}, and the preparation is called Radio-iodinated Serum Albumin (Human). The physical and chemical properties of the albumin remain unchanged, and therefore it constitutes an ideal mixer in the plasma. The procedure is then based on the isotope dilution principle which is so commonly used in most isotope procedures.

RISA is made up to a concentration of 3 to 5 μc per ml. in a stock bottle before use. A 1 ml. sample is withdrawn from the stock bottle and injected into the 1,000 ml. volume flask. Exactly the same amount is again drawn into the same needle and syringe from the same stock bottle and injected into the patient's vein. After waiting 10 to 15 minutes for mixing to occur, a sample of blood is withdrawn from the opposite arm without stasis and put into a heparinized or oxalated tube. A sample of this is taken for hematocrit determination. The remainder is spun down in a centrifuge and two 3 ml. samples of plasma are withdrawn and counted.

To obtain:

$$\frac{\text{Ccpm* of standard} \times \text{vol. of standard (1,000 ml.)}}{\text{Ccpm of patient's plasma}} = \text{Plasma volume}$$

$$\frac{\text{Plasma volume}}{1 - \text{corrected hematocrit}} = \text{Total blood volume}$$

$$\text{Total blood volume} - \text{Plasma volume} = \text{Red cell mass}$$

This simple procedure may be repeated quite often (10 to 20 times) in a patient, since very little activity is injected. This is an advantage over the Evans' Blue Method. In repeating the procedure a sample of blood must be obtained before injecting the RISA to determine residual or background activity of the patient's plasma. Then:

$$\text{Plasma volume} = \frac{\text{Ccpm/ml. standard} \times \text{vol. of standard}}{\text{Ccpm/ml. patient's plasma} - \text{ccpm/ml. preliminary plasma sample}}$$

One authority gives the following "normal" values:

Total blood volume	60–85 c.c./kgm.
Plasma volume	30–60 c.c./kgm.
Red cell mass	26–40 c.c./kgm.

There is a practical accuracy of 3 to 5 per cent in the method.

The information obtained may be important in the management of fluid balance in major surgical procedures and burn cases. It will also be of value as an aid in diagnosing polycythemia vera, since there should be a rise in the total red blood cell mass in this condition. It is also of value in cases of cardiac decompensation, since it has been shown that the total blood volume is increased when the heart is decompensated. Surgeons doing heart surgery find it a very valuable guide as to when they may operate.

Other determinations, such as hemoglobin and serum proteins, used in conjunction with this test give a 3-dimensional picture.

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* Corrected counts per minute

PRACTICAL RADIOISOTOPE THERAPY*

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THE MEDICAL PROFESSION has had 15 years to evaluate the therapeutic applications of radioisotopes. During that interval many isotopes have been tested and various means of administration have been accepted as "routine procedures." This discussion will be divided as to methods of application of the more commonly used radioisotopes as external (teletherapy), surface, interstitial, intracavitary, and internal methods of administration.

As far as we now know the effects of radioisotope radiation in tissue, benign or malignant, will be the same as the effects from irradiation by radium or X-ray therapy, provided the radiation dose to the subject tissue is the same. Radioisotopes offer no new or magical rays. Their advantage lies in their availability and their chemical or biologic nature. Biologic localization may occur as with iodine-131, or a radioisotope may be mechanically localized by the production of a chemical compound (e.g., radioactive colloidal gold-198). By means of these properties it is possible often to deliver a larger dose of radiation to the desired tissue with a smaller dose to surrounding healthy tissue than by older radiotherapeutic measures.

Teletherapy applications. The substitution of a large source of a radioisotope with gamma-ray emission of high energy for the conventional X-ray therapy apparatus is now an accepted procedure. The most widely used isotope in this application is cobalt-60. Cobalt teletherapy units are now commercially available from several companies, and these units are being widely used in this country, Canada and the British Isles (figure 1).

In addition to cobalt-60, cesium-137 and europium-152 are being investigated as clinical teletherapy units for use in radiation therapy.

Cobalt-60 has a half life in the range of 5 years and emits gamma rays which are practically mono-energetic, with energy of about 1.5 MEV (table 1). This compares favorably to the useful beam of a 2 to 2.5 million volt X-ray therapy apparatus (figure 2). There is on the market a Co^{60} teletherapy unit costing $30,000 including the radiocobalt. A 2-million volt X-ray machine would cost several times this figure. In addition, the maintenance cost of the conventional supervoltage therapy machine, including repair and replacement of complicated electronics circuits and tubes, is quite expensive. The only power needed by the cobalt unit is a 110-volt line for the motor driven rotational unit and to light the beam localizer. It is true that cobalt-60 will

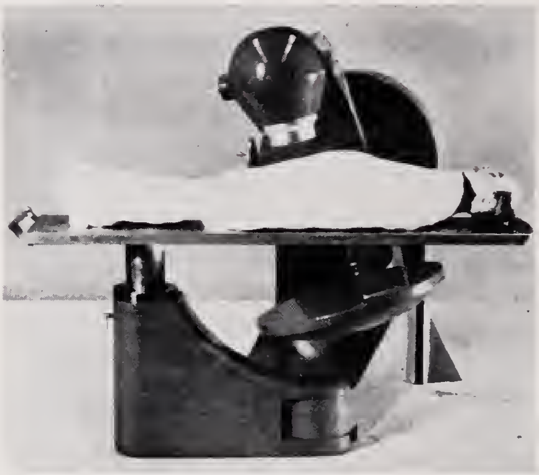

FIG. 1. Teletherapy unit using cobalt-60. This unit is the Theratron Junior, manufactured and assembled by Atomic Energy of Canada, Ltd. Compare the size of this unit with the Van de Graaf Generator. The 2 units produce X-rays of equivalent energy.

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* Delivered at the 25th Annual Scientific Assembly of The Medical Society of the District of Columbia, October 10, 1955.

undergo radioactive decay, and decay charts have to be adapted into the dosage chart. Also, the course must be re-irradiated or replaced at intervals. For the above-mentioned teletherapy unit the cost of replacing the cobalt-60 source (600 mc. of cobalt-60) would be about $6,000.00 at the present price. This is a fraction of the cost of replacing the X-ray tube on a 2 million volt X-ray therapy unit. Instead of replacing the cobalt-60 source at the end of 2 or 3 years, additional new sources could be added to bring the activity up to its original 600 mc. level.

TABLE 1

*Comparison of Cobalt-60 Teletherapy and the 2.5 MEV Van de Graaf Generator**

	Cobalt-60	2.5 million volt X-ray
Energy of useful beam	1.5 MEV	1.6 MV
Output	30 r/min.	60 r/min.
Replacement time	Every 2–3 years (radioactive source)	Probably every 5–6 years (X-ray tube)
Unit cost	$30,000.00	$100,000.00
Shielding	$\frac{3}{8}''$ lead	24″ of cement and 1″ of lead
Adaptability	Moves in all dimensions	Fixed
Repairs and maintenance	Little or none	Extensive upkeep required
Power source	110 volts	High voltage transformers required
Availability	Supply limited	Available on order
Tissue effects	Same	Same
Treatment planning	Same	Same

* Compares characteristics of the 2.5 million volt Van de Graaf Generator now used at Bethesda Naval Hospital with the Theratron Jr. The unit cost for the Van de Graaf includes installation and shielding plus the building and is an estimate. The unit cost for the Co^{60} Theratron includes the radioactive cobalt.

The shielding of the cobalt-60 unit is minimal, since the counter balance arm opposite the tube head contains an adequate shield for the primary beam. Secondary scatter will have to be shielded, and a $\frac{3}{8}$ inch of lead added to the walls is required for this shield. The 2- or 2.5 million volt X-ray unit (or Van de Graaf unit) will require many feet of cement or a costly thickness of lead and cement.

Treatment planning would be the same for both teletherapy and X-ray therapy machines. Operation of the teletherapy unit would be simpler in that there is no regulating of kilovoltage or milliamperage necessary.

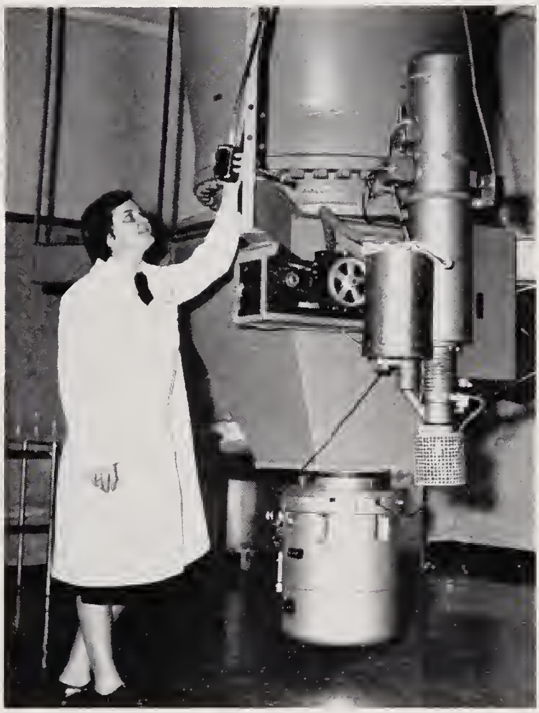

FIG. 2. Van de Graaf Generator (2.5 million volt X-ray therapy apparatus). This figure shows the approximate size of the lower one half of the unit. The cylindrical shield resting on the floor is raised above the patient during therapy.

The cobalt-60 teletherapy units now available are as adaptable, and in some cases more so, than larger-sized conventional X-ray therapy units.

One drawback to the use of cobalt-60 is that this isotope is still not available in adequate amounts. However, once the nuclear reactor space required to irradiate large activity sources of this isotope is available it may well be substituted for many conventional X-ray therapy units because of the above-mentioned advantages.

Surface application. Strontium-90 has been utilized as a surface application in treating certain eye lesions and some small skin cancers. Such an applicator has been commercially available for several years at a minimal cost and is used as a substitute for a radium-B applicator. Revascularization of the cornea and pterygia are routinely treated at many medical centers with the strontium-90 applicator.

Interstitial applications. Cobalt-60 has also been used as a form of interstitial radiation therapy as a successful substitute for radium. It can be machined into needles, seeds or tubes of the same size as radium sources. By adjusting the present radium dosage tables for the difference in energies between the gamma emissions of these 2 radioisotopes, treatment planning is carried out in the same manner as when radium is used.

TABLE 2

*Comparison of Artificial and Natural Radioisotopes for Clinical Use**

	Co^{60}	Ra^{226}	Au^{198}	Rn^{222}
Half life	5 years	1,590 years	2.7 days	3.83 days
Gamma energy†	13.5	8.4	2.4	8.4
Availability	Available	Limited	Available	Limited
Adaptability	Can be made into any form	Limited	Can be made into any form	Limited
Treatment planning	Available radium and radon tables have been modified for application to both Co^{60} and Au^{198}.			
Therapist	Only a trained radiotherapist should administer these isotopes with assistance by a radiation physicist.			
Cost	The cost of Ra-Rn is about 100 times the cost of equivalent amounts of Co^{60} or Au^{198}.			

* A comparison of radium with cobalt-60 and of radon with gold-198 in regards to physical characteristics, etc. Since the cost of any of these isotopes depends upon in what form it is obtained, the cobalt-60 for a teletherapy unit is priced at about $10.00 per curie, in units of 400 curies or more. Cobalt-60 needles are about $20.00 for a 2- or 3-millicurie needle.

† Expressed as dosage-rate in r/hr/mc. at 1 cm. distance in air.

Another isotope, gold-198, in the form of radioactive metallic seeds, is now widely used as a substitute for radon seeds. The physical characteristics of radon and gold are comparable. The supply of radium is limited, but radon is even more scarce. The production of radon requires a complicated, expensive and sometimes hazardous "radium-radon plant" where the radon gas can be drained off. The substitution of metallic gold-198 seeds in the form of available, inexpensive and easily machined sources is a boon to the radiotherapist in treating certain malignant lesions (table 2).

There are newer methods of injecting radioactive colloidal compounds directly into malignant tumor tissue. Some of this large molecular size compound will remain in the tissue injected and will irradiate it. Some of the compound travels by way of the lymphatics to lymph nodes draining the tumor tissue and will remain in these metastatic nodes irradiating them. This use of radioisotopes is still under investigation and will not be described in this paper, although it is a type of interstitial radioisotope therapy.

Intracavitary administration. The injection of radioactive colloidal compounds into serous cavities in cases of effusions caused by metastatic spread to serous membranes is a new but widely accepted form of therapy. The object of this treatment is to inhibit and to sometimes cause a cessation of fluid formation and thereby avoid discomfort and hazards of repeated abdominal and thoracic punctures.

Radioactive colloidal gold-198 and chromic phosphate incorporating phosphorus-32 are now considered practical methods of treatment for malignant effusions. Other compounds are now under investigation.

There are two schools of thought as to the best time of treatment of these patients. One group thinks that the therapist should wait until there is a free and rapid formation of fluid, after several thoracenteses or paracenteses are required, to administer the colloidal compound. Another group believes that the earlier the treatment the better and that the compound may be injected as soon as it is proven that the fluid is a true malignant effusion.

I agree with the latter rationale for the following reasons:

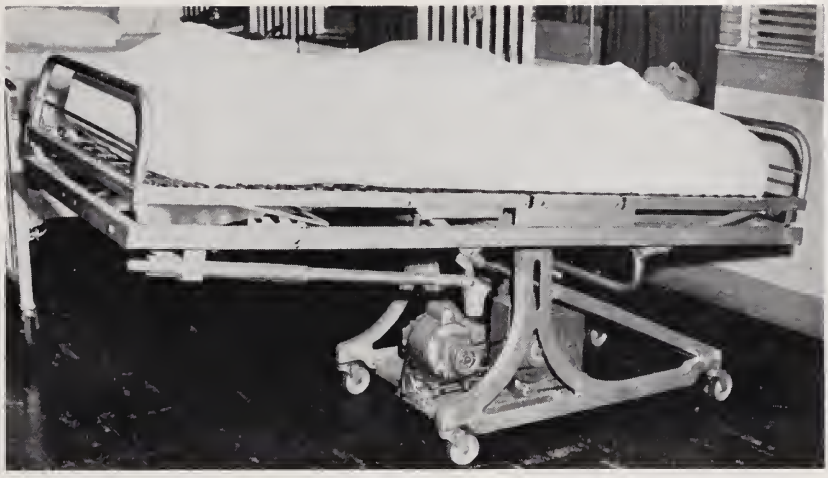

Fig. 3. Oscillating bed used to spread radioactive colloidal solutions over serosal cavities during treatment of malignant effusions.

1. By the time a malignant effusion occurs the patient is incurable.
2. In such a patient every effort toward palliation should be made and the avoidance of numerous abdominal or thoracic taps is a part of the palliative program.
3. Plasma proteins and other blood constituents are lost in the fluid removal, and in debilitated cancer cases these constituents are important and difficult to replace. If 3 or 4 thoracenteses can be avoided by early treatment it is well worth while.
4. The doses used should have no permanent effect on the hematopoietic system, and the radiation effects should not be detrimental to the patient.

Doses administered may vary according to the size of the patient, but the variations are not marked. They do not vary according to the primary disease.

For intracavitary administration into the thorax a dose of 75 to 100 mc. of colloidal gold-198 or 10 to 15 mc. of chromic phosphate (P^{32}) is administered following paracenteses. Following injection the patient is rotated in bed on all sides and in the head-elevated and feet-elevated positions, alternating these positions every 15 minutes for about 4 hours. An oscillating bed is ideal for this maneuver, which is necessary in order to expose as much of the serous surface as possible to the radioactive compound (figure 3).

The time interval required for biologic effect of radiation to tissue, delivered in 1 dose, is about 10 to 14 days. Since the half life of gold-198 is 2.7 days, one must wait until most of its radiations have been delivered (about 10 days) plus at least some of the above-mentioned latent period for best results. Thus, in using colloidal gold-198 the period required is 15 to 20 days for optimum effect. If radiophosphorus (P^{32}), with a half life of 14 days is used, the optimal effective time interval will be longer, in the vicinity of 4 to 8 weeks. (Actually, beneficial results are noticed much earlier than these time intervals, since the tissue exposed is being continuously irradiated.) For very rapidly forming effusions it is evident from theoretical standpoints and from experience that the gold compound is more effective. This is not only true because of the more rapid rate of radiation delivery, but also because of the fact that a tap will probably be necessary within several days following treatment and some of the remaining isotope will be withdrawn in the fluid. If gold-198 is used, most of it will have decayed in the 10 days' time, while if P^{32} is used, less than half of the original activity will have undergone radioactive decay in the same time interval.

Chromic phosphate (P^{32}) is much easier to handle due to lack of gamma-ray emission. The gold-198 must be administered by remote control, since its gamma rays are relatively energetic and personnel using this isotope must take every precaution to avoid overexposure. As stated, this is not true of P^{32}, which may be injected directly with the use of only a thin lucite-shielded syringe.

The intracavitary administration of radioactive colloidal compounds offers best results in malignant effusions complicating the malignant lymphomas, bronchiogenic carcinoma, breast carcinoma and ovarian carcinoma. It is less effective in effusions of the gastrointestinal tract and malignant tumors of the liver.

Internal administration. This type of radioisotope therapy has been most widely publicized. However, there are at present only 2 isotopes which have routine practical use. These are iodine-131 and phosphorus-32. In the past 15 years, thousands of patients with diffuse toxic goiter have been spared the danger of thyroidectomy and its possible complications and scar by adequate treatment with radioiodine (table 3). Toxic nodular goiter is occasionally treated with I^{131}, but the recurrence rate is higher, larger doses are needed, and the results are not as good.

One may treat diffuse toxic goiter by estimating the weight of the gland and adjusting the dose of I^{131} accordingly. However, the weight of the thyroid gland is difficult to estimate. Since therapeutic doses in the range used to treat this condition can be administered on an outpatient basis, it is believed that better results can be achieved if a smaller dose, 5 to 6 mc. of I^{131}, is first administered. The patient would be seen again in 3 months, his thyroid status reevaluated, and if necessary an additional dose given.

I have never seen a case of thyroid crisis following I^{131} therapy and have heard very few firsthand accounts of such a complication. If the therapist is going to worry about the possibility of this occurring in an extremely hyperthyroid patient, he should hospitalize the patient and "cover" the patient with adequate antithyroid therapy for a few days before and after the administration of the I^{131}.

At Bethesda Naval Hospital pregnant women are not treated with I^{131}. Patients under 35 years of age are not treated unless under unusual circumstances such as sensitivity to antithyroid drugs plus a physical condition in which surgery is contraindicated.

TABLE 3

*Résumé of 40 Cases of Hyperthroidism Treated at Bethesda Naval Hospital**

1950–1952

	Men	Women	Over-all Results
Number of patients	20	20	40
Mean age, years....	48	49	48.5
Mean dose	11.1 mc.	9.5 mc.	10.5 mc.
Requiring multiple doses	35 per cent	35 per cent	35 per cent
Recurrences following surgery	5 per cent	35 per cent	20 per cent
Concomitant heart disease	30 per cent	15 per cent	22 per cent
Percentage of those treated:			
Clinically hypothyroid	25 per cent	15 per cent	20 per cent
Clinically in remission	65 per cent	85 per cent	75 per cent
Clinically hyperthyroid	10 per cent	0	5 per cent

* The first 40 unselected cases of hyperthyroidism treated at the Radioisotope Laboratory, United States Naval Hospital, Bethesda, Maryland, from 1950 to 1952. The fact that the number of men and women patients are equal is coincidental. These patients have maintained their good results after a follow-up period of a minimum of 2½ years.

There has been no proof, despite 15 years' experience, of severe complications resulting from the doses of I^{131} administered in hyperthyroidism. Neither has there been proof that such doses will result in genetic harm to children and their subsequent generations conceived after such treatment. But the above precautions are advisable until further studies are made, and to avoid undue controversy and criticism.

Certain cardiac conditions are often aided by therapeutic doses of I^{131}. Here, again, the dosage range varies with the particular group prescribing the treatment. One group treats the patients by extreme protractions, giving the I^{131} in 1 or 2 mc. doses over a long period of time. Another group is more aggressive and gives larger immediate doses in the order of 10 to 15 mc. of I^{131}.

As the object of this treatment is to reduce the metabolic rate of the patient by destroying thyroid function and hence lessening the cardiac workload, it would seem logical to give larger doses in order to bring about the desired effect in a shorter period of time. The half life of I^{131} is 8 days, and in 4 half lives (32 days) most of the radioactive dosage will have been delivered. If one combines this with the 14-day latent period for a single radiation dose, one deduces that about 7 weeks transpire before the maximum beneficial effect occurs. (Again the actual time will be shorter.) In a "cardiac cripple" in congestive failure or in a severe angina patient it may be critical to prolong the effective time. I believe that a moderately large dose should be given followed in 3 months by reëvaluation of the cardiac status and probably additional radioiodine therapy.

In certain types of carcinoma of the thyroid I^{131} has proven effective by inhibiting further spread of the disease and in a few instances eliminating distant metastases. Pathologic types of thyroid carcinoma which can be treated are those in which active colloid formation occurs. In some instances distant metastases which have not demonstrated colloid formation will do so following extirpation of the thyroid gland. For this reason, and for the more obvious reason that the functioning thyroid, if present, will act in competition with metastases and pick up most of the administered I^{131}, it is necessary to remove the thyroid prior to attempting to treat distant thyroid carcinoma metastases. This extirpation is best performed by surgery.

From this statement one may conclude that only distant metastases are treated with radioiodine. This should be true, since the primary disease is best treated surgically. Furthermore, surgical removal of available metastases in the neck is the treatment of choice. Radioiodine should be used in treating metastases which cannot be removed by surgery.

It is believed that, if metastases of thyroid carcinoma have been demonstrated to pick up I^{131}, they should be treated immediately with a dose in the vicinity of 100 mc. Even if the gland has been removed it is probable that only a small fraction of the dose will be retained in the metastases. From experience in radiotherapy it has been proven that as a malignant tumor is reëxposed to radiation a radiation resistance is developed in the tumor and the response to further radiation therapy lessens. This apparently is true in radioiodine treatment of metastatic thyroid carcinoma. The smaller the initial doses, the less the response to later dosage. A better result is achieved if repeated doses of 100 to 150 mc. magnitude are administered early in the treatment cycle.

During the treatment the hemogram should be rigidly observed, and if the white blood cell count maintains a level below 3,000 per cu. mm. treatment should be prolonged or stopped.

As one may judge from these statements, the treatment of metastatic carcinoma of the thyroid with I^{131} is a prolonged treatment of a chronic disease. This type of cancer is noted for its long survival. However, when the metastases involve bone, lung or brain, aggressive therapy is mandatory. Many patients have had their disease controlled over a period of years by periodic treatments over the same length of time. I have treated a patient in this vicinity over the past 57 months who suffered from brain metastases and in whom, although still under treatment, at this time has functioning brain metastases that localize and retain I^{131}. This patient has had a total of 600 mc. of I^{131} administered over the 57-month period and will no doubt require more therapy. Her hemogram is normal at this date.

It should be emphasized that the above case is an unusually good result. Perhaps 15 per cent of all thyroid carcinoma metastases will retain I^{131} with the thyroid gland remaining. If the gland is extirpated this value may rise to 30 per cent.

Radiophosphorus is accepted as the treatment of choice in polycythemia vera and in certain chronic myelogenous leukemias. In treating polycythemia vera a dose of 2 to 3 mc. is administered orally and followed by a waiting period of about 12 weeks, during which the hemogram is followed at intervals. At the end of this time, if the red blood cell and hemoglobin level have not returned to normal, an additional 2 to 3 mc. dose is administered. Usually about 7 to 8 mc. is needed for a remission, but occasionally less and more often additional doses are required. Remissions of polycythemia with cessation of symptoms have persisted for years following P^{32} therapy.

Chronic granulocytic and chronic lymphatic leukemias can be managed adequately by P^{32}, and as a rule effective emissions result. A graph of the result of a typical remission is shown in figure 4. In this case the dose was given at a rate of 1 mc. per week until the white blood cell count persisted below a level of 30,000. Eight mc. of P^{32} was required in 8 weeks' time. This is the rate at which chronic leukemias are treated at Bethesda Naval Hospital at this time. Splenomegaly is adequately controlled by this form of treatment, although X-ray treatment may be used if desired. However, it is not advocated to use X-ray therapy and P^{32} concomitantly.

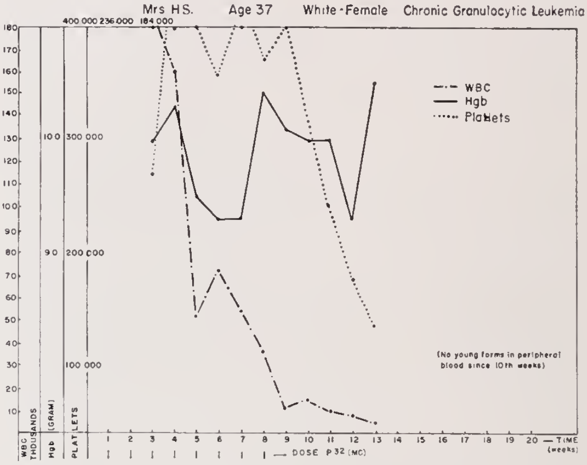

FIG. 4. Graphic results of a remission following administration of 8 mc. of P^{32} at the rate of 1 mc. per week for 8 consecutive weeks. Treatment was continued until the white blood cell count fell below 30,000. The white blood cell count and platelet counts have risen to normal levels and have remained normal.

Other rates of administration of P^{32} are advocated in certain centers. Originally a single dose of about 1 mc./10 kgm. body weight was administered intravenously. Some groups give 2 to 3 mc. of P^{32} per month to their leukemia patients. However given, the dose required for a remission is usually about 7 to 8 mc. I believe that by extreme protraction and fractionation of the dose at the rate of 1 mc./week the blood count can be more easily controlled.

TREATMENT OF THE DISTURBED METABOLIC PROCESSES AND EDEMA OF NEPHROSIS*

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THE NEPHROTIC SYNDROME is characterized by excessive edema, proteinuria hypoalbuminemia, and hypercholesterolemia. In so-called pure lipoid nephrosis persistent hematuria, azotemia, and hypertension are absent. This disease occupies a position shared by few diseases in that its etiology is unknown, its course unpredictable, its prognosis uncertain, and its treatment often unsatisfactory. Treatment is largely symptomatic and aims at the prevention and control of acute infections, establishment of good nutrition and mental hygiene, readjustment of the disturbed metabolic processes, and attempts at control of edema. It is the purpose of this paper to discuss the latter two aspects of treatment.

Metcoff et al[1] have shown that approximately 50 per cent of patients at the onset of nephrosis or at the beginning of an exacerbation have a remission of the disturbed metabolism and edema within 2 months. On the theory that a physiologic spontaneous diuresis should be allowed to occur if possible, it is better to wait 6 to 8 weeks after the onset or an exacerbation before therapy should be considered. If this does not occur, a valuable method used to decide whether therapy would be effective is the determination of the glomerular filtration rate. Workers have never been able to induce diuresis in patients with clearance less than 15 per cent of normal, and yet it is not uncommon to induce diuresis if the renal clearance is greater than 20 per cent of normal.

Definitive therapy today in the medical centers revolves around the use of corticosteroids. Since it is thought that spontaneous remissions are produced via "the alarm reaction," there is rationale in using the steroids. It is generally agreed that the adverse effects of adrenal hormones in this disease are uncommon, but since we will not know the full extent of the bodily response to them until a controlled group is followed through adolescence, caution is advised in their use. Their administration has not prevented death from renal insufficiency and apparently the progression of glomerular disease, since nephrotics die at apparently the same rate as they formerly did.[1, 2] In a review of the cases at the Rockefeller Institute from 1932 to 1940,[1] a period representing a pre-endocrine, pre-antibiotic era, 50 per cent of nephrotics were in complete remission for varying lengths of time; 25 per cent died with acute infection, nephrotic crises, etc.; and 25 per cent developed chronic renal failure. These figures are similar to those reported currently.[1] In a follow-up of 60 patients 55 per cent were in remission, 30 per cent died in the active stage, 5 per cent died in the chronic active stage, and 10 per cent have chronic renal disease. Apparently the decrease in mortality in nephrosis in the past decade is due to the use of antibiotics, with resultant decreased infectious deaths.

Reasons for using the hormones are numerous. At times edema becomes the primary concern in treatment, since it is practically always associated with a decreased serum protein and serum albumin. It has been shown by Metcoff et al[1, 3] that regardless of the level of renal function at the time diuresis was initiated by steroids, if remission persisted there was return of all renal functions to normal levels. It is based on this that he believes the steroids may not represent simple diuretic agents.

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The pharmacologic effects of the hormones have been studied extensively and, in general, if a remission occurs there are (a) a decrease in proteinuria,[3-9] (b) a decrease in the formed elements in the urine,[5, 7, 8] (c) an increase in the serum albumin concentration and to a lesser degree in other plasma proteins,[4-9] (d) a restoration of normal electrophoretic pattern of the blood with the exception of gamma globulin, which remains low,[10, 11] (e) a drop in the hypercholesterolemia and the hyperlipemia,[4, 7, 9] (f) a reduction of the erythrocyte sedimentation rate to normal,[4, 5] (g) an increase of the diminished complement concentration,[8, 10] (h) a reduction of the antidiuretic hormone,[6] (i) an increase of the glomerular filtration to normal or supernormal levels,[3, 12] (j) a reduction of the sodium-retaining fraction of the urinary corticoids,[7] (k) a restoration of the normal capacity of the renal tubules to reject sodium.[13]

Once steroids are decided upon, several courses are open to the therapist for the production of diuresis; these are[14] (1) ACTH, 100 mg./M^2/day, (2) cortisone (oral) 300 mg./M^2/day, or (3) ACTH gel in comparable doses.* Concomitantly with the diuresis, orange juice, milk, and salt are administered generously to maintain electrolyte balance. Following efficacy of treatment by the method proposed by Lange,[2] one obtains the initial determination of serum complement, which may be, e.g., 0.5 units. A 9-day course of 100 mg. of ACTH is given and the low complement will rise to normal, with the body weight falling concomitantly. The general pattern is that 7 days prior to serum complement rise, eosinopenia occurs under the influence of ACTH, and 7 days later serum complement will rise. Twenty-four to 48 hours after this one may get a diuresis.

For maintenance of nephrotics, one may use[14] (a) no therapy, (b) intermittent therapy in which at the first signs of exacerbation the steroids are administered again, (c) small daily doses of cortisone, (d) cortisone 200 to 400 mg. per square meter a day, 3 days per week, or (e) ACTH gel. It is with these latter 3 methods that the best results are reported. Metcoff,[1] observing 92 patients from November 1949 to April 1953 treated with ACTH, cortisone or ACTH with cortisone, reports 31 without edema and clinically well for approximately 1 year, 23 still active, 23 dead, and 14 unknown. It is on the basis of these results that he considers ACTH or cortisone may be of distinct benefit in the maintenance of nephrotic children. He notes, however, while following 2 patients with spontaneous remissions for 2 and 3 years, that their renal function studies also remained normal.

Certain precautionary observations must be remembered if steroids are to be used. If a patient has a blood nonprotein nitrogen of 40 to 50 per cent prior to the start of ACTH therapy, azotemia will develop quickly, and fatalities are reported from rises in blood urea nitrogen. In the event of impending azotemia it is recommended that the diet be chiefly high carbohydrate-low protein in nature. Another pertinent observation regarding ACTH therapy has been that it is very little used in the acute nephrotic. This has been substantiated by Lange,[2] who notes only a very slight rise in complement prior to lack of clinical response to the hormone. The inherent danger of ACTH on sodium and potassium with the production of the "low-salt syndrome" is well known. It has been ascertained[3] that 3 mM. of sodium per kilo per day with simultaneous administration of potassium (3 to 5 mM./kilo) is the minimum intake that should accompany steroid therapy. That sodium loss per se in an already slightly acidotic patient has not produced more damage is an enigma, the solution of which might very well explain the unpredictability of this treatment

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* This varies in that the activity of some market preparations of repository corticotropin is expressed not in U.S.P. units but rather in therapeutic equivalent units.

Because steroids are not effective in 100 per cent of cases and because of similar results without their use, other methods have been tried to reduce edema. Such a method has been the administration of potassium and sodium acetate.[15] The rationale of their use lies in the fact that acidosis preceding and accompanying uremia is a predominant feature of this disease and can be offset by bases. Since electrolyte control is in the renal tubules, this method of therapy presupposes that the damage is not in the basement membrane but is due to the precipitation of protein into the tubular lumen. This is a controversial point outside the scope of this paper. Riley,[1] reporting on 17 cases with the use of sodium lactate supplement to hormone courses, notes success in only 7 cases. It should be noted that this was without potassium and cannot be called a representative series. Fox,[1, 15] on the other hand, measuring urinary and serum electrolytes of patients, found that, despite the oral administration of potassium and sodium acetate with ACTH, he couldn't correct an abnormal bicarbonate excretion. It was necessary first to give $^{1}/_{6}$ molar lactate solution intravenously to bring the bicarbonate level to normal, then continuing the regimen mentioned before a diuresis occurred. Since more work needs to be done, nothing definite can be said about sodium and potassium acetate administration.

When alternate methods of treatment of nephrosis are considered, the administration of albumin should be thought of. It is known that, if one artificially raises the serum albumin, there is an increase in proteinuria. Then if one stops giving the protein and lets it fall to its initial level, assuming the permeability stays the same, with this fall in plasma protein there will be decreased excretion. This is not the whole answer, however, since it is a moot question to date whether the hyperproteinuria is due to increased glomerular filtration, increased presentation of protein to the kidney via extrarenal changes, or decreased tubular absorption. At any rate, diuresis occurs with the administration of albumin; and, with this in mind, if diuresis fails to occur 48 hours after the withdrawal of hormones, albumin can be given. The dose has been reported at 50 Gm. per day for 1 week. Some investigators[1] reported the use of dextran to be better than human albumin for this purpose. Metcoff[1] believes the mechanism of a dextran-induced diuresis to be inhibition of the effects of circulating pitressin on water excretion, since, by renal function studies, he has been able to show that dextran-induced diuresis is only a water diuresis. Although removal of edema with dextran can generally be effected, it is not without danger of reaction, since severe hypertension is often encountered. Upjohn gelatin has had limited trials but appears to be free of reactions. The reports are in conflict regarding this whole question. Thorn and Tyler[16] in 1947 showed a favorable response to the administration of albumin but not gelatin, while Vander Meer[17] in 1953 had no untoward reactions and good diuresis with a 5-year follow-up of patients given gelatin.

Once treatment has been initiated, the course of the disease may be followed in numerous ways. In acute nephritis a good prognosis is offered if the albuminuria disappears, sedimentation rate returns to normal, and the Addis count is less than 1,000,000 erythrocytes with a maximum of 80 mg. of albumin per day within a month. There should also be a lack of hypertension, no rise of the nonprotein nitrogen, and no hematuria. If these latter are continuously present and/or albuminuria persists for a year, one is forced to classify the case as chronic active nephrosis. Urea clearance tests are particularly valuable in following the course of the acute stage. It has been noted that 50 to 60 per cent decrease of clearance is noted in the acute stage; and it is thought that, if by the end of 3 months it has returned to normal, the patient will recover.

Proteinuria may be used as a means of following the effectiveness of therapy of nephrotics within limits. McCrory[1, 2] states that the likelihood of eliminating proteinuria is related to the severity of the original proteinuria. For example, children excreting 3 Gm. or less per day are more likely to become protein-free after therapy than those excreting greater amounts. Of note is a report by Hyman[2] of a girl in an ACTH series who was albumin-free for over a year but had a recurrence. Again, Riley,[2] quoting Galan, reports an exacerbation after a 3-year albumin-free period. Some workers report that they use decreased urinary output as a sign that previous or maintenance therapy is waning and reinstitution of active therapy is indicated. Many others use a return of erythrocyte sedimentation rate to normal with maintenance within normal limits.

In general, then, therapy can be followed by the clinical appearance of edema, oliguria, and unnatural weight gain. The laboratory may be utilized to follow proteinuria, erythrocyte sedimentation rate, physical elements in the urine, Addis count, blood nonprotein nitrogen, urea clearance, and complement levels.

Summary

A review of the present-day concepts on therapy of the disturbed metabolic processes and edema of nephrosis has been presented. Included are the rationale, pharmacologic action, dosages and side-effects of adrenocorticosteroid therapy. Potassium and sodium acetate, albumin, dextran, and gelatin therapy have been discussed. Methods of following the efficacy of treatment were presented.

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President's Page

REHABILITATION—An Opportunity and a Challenge

There are numerous agencies and organizations in the District of Columbia engaged in vocational rehabilitation. Some of them are familiar to physicians; more are not. If this is true of doctors, it is doubly true of the majority of citizens. They have little or no conception of the vast amount of money and effort expended to salvage human lives in our community. This situation, it is fully expected, will be rectified when a study now in the planning stage has been completed.

Individually physicians are engaged in rehabilitating patients, but they are pretty much restricted in their interests to the fields of practice in which they are engaged. Although this is to be expected, it is nevertheless a source of regret for many reasons. Two stand out: first, the medical phase of the rehabilitation program desperately needs medical leadership; and second, because the program lacked this direction in its initial stages, there now appear to be overlapping and duplication with resultant loss of valuable time and money.

As late as it is, it is not too late, in my opinion, for the medical profession through its organizations to provide the necessary leadership. Our Society took the first step in this direction at its business meeting on September 21, 1955, when it approved the action of the Executive Board in establishing a Committee on Vocational Rehabilitation. Subsequently, upon recommendation of the Committee, that body was designated the Council on Rehabilitation for the Washington Metropolitan Area with the view of including representatives of other organizations, especially other medical groups in adjacent communities "having to do with total registration program of the handicapped."

The Council was authorized to develop a blueprint for a pilot program devoted to a "study of existing rehabilitation facilities in the Washington Metropolitan Area, assessment of present and future needs." Funds have been made available to the Council by the Office of Vocational Rehabilitation of the Department of Health, Education and Welfare to implement this program.

Recognizing that this is a formidable assignment, I am nevertheless confident that the Council will display the statesmanlike leadership which one might expect of the fine group of physicians who make up its personnel.

W. Ross Morris

Editorials

THE REAL MEANING OF CHRISTMAS

There are three ways in which we can celebrate Christmas. Which is your way?

First, we can celebrate X-mas ("X-mas," mark you!) with Christ entirely left out and in His place the letter "X" which usually denotes the algebraic unknown. When we do this, Christmas is a holiday and never a holy-day and we are content with scottie-dog Christmas cards, even—and this I've seen (God forgive us!)—an atom-bomb Christmas card. X-mas gift-giving is a chore; X-mas gift-receiving, a bore. Christmas comes and goes with the merest flicker of a passing thought to the real meaning of the joyous feast—Christmas spelled X-m-a-s.

Secondly, there's what may be called a "real-folksy" Christmas. This is the Christmas of most of us and it is spelled with a small "c"—christmas. There is an atmosphere of good fellowship that seems to engulf us all at this season and we respond to it:

> A man is at his finest
> toward the finish of the year.
> He is almost what he should be
> when the Christmas season's here.
> Oh, I don't know how to say it,
> but it always seems to me
> That at Christmas man is almost
> what God sent him here to be.

The poet is a rash optimist, but who would deny that at Christmas-time life seems nobler, brighter and better? Our customary irritableness passes for a time. We plan gifts and entertainment for relatives and friends who suddenly seem nearer and dearer. Family ties are drawn closer. We look forward to Christmas Day, to the family circle, the tree, the dinner, the gift-sharing. We build a crêche in our home; we spend more time—happy time—with our happy children; we go to decorate the Church, perhaps; the Christmas carols sing in our hearts. We are steeped in the romance and warmth, the sentiment and glow of this glad season. This "real-folksy" christmas is no small thing. There is something tremendous about the way we yield overselves as a people to its spell. But we can have this kind of a christmas (small "c," note!) and still miss the real meaning of this happy and holy season. We can have this kind of christmas and the wistfulness that lies deep in the heart of each of us will still linger.

That brings us to the last—to the real Christmas, spelled with a capital "C." For all of us there can be more to Christmas than just a holiday from work, or a too-brief period of good fellowship; and even more to Christmas than a nice story to tell our children of something that happened "once upon a time" in Bethlehem.

Those of us who are Christians, for example, believe that at the first Christmas the divine love uniquely entered human life. We believe that there, in that crude stable, God became what we are to make us as He is. Thus, no mere words can ever express all that Christmas should mean, can mean, and often does mean to the Christian.

And even for those of us who are not followers of the Christian faith, Christmas can have—and very often does have—far more significance than just another holiday. For surely, the more thoughtful of us see the amazing difference that that one life has made, and is making, for

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

mankind everywhere. With all their faults and follies—and they are many and great—the followers of Him, in Whom are light and life, and healing, and help and hope, have caught His spirit and have lifted the lot of mankind everywhere and every day. Because of Him life for uncountable millions has been, and is, easier and better, happier, healthier and more hopeful.

In short, every Christmas is a reminder of the first Christmas—that great, glad day that marked God's unspeakable Gift to us all.

How shall we celebrate Christmas? More important, how will *you* celebrate Christmas?

May yours be not only a merry X-mas. And may yours be not only a pleasant christmas. Rather, may God give to you, and to your loved ones, the true happiness that comes from the true observance of a true and holy Christmas.

THE REVEREND FREDERICK H. ARTERTON
Rector, All Saints' Church,
Chevy Chase, Maryland

MEDICAL CIVIL DEFENSE IN BALANCE

With the closing of the Upshur Street Hospital the Department of Public Health has announced a plan to use part of the old landmark as a Civil Defense Medical and Public Health Training Center. The plan envisions the acquisition from Federal Civil Defense Administration of an improvised hospital which would be set up in the building. The Director of Public Health proposes that the hospital be used as a training center for physicians and future physicians in the Washington Metropolitan Area. Other private and Government medical and public health agencies would be asked to participate.

The training would consist of two phases: familiarization with the assembly, facilities, and operation of this type of hospital, which is now being mass-produced by thousands by FCDA for storage around critical target areas, and which would undoubtedly provide most of the available hospitalization in time of disaster; and the teaching of special technics in the handling, sorting, and treatment of mass casualties.

The FCDA has already promised an improvised hospital unit free for this purpose. Portable when packaged, the unit contains 200 beds and is completely supplied and equipped for 3 operating rooms, a reception and sorting area, sterilizing rooms, central supply area, laboratory, pharmacy, X-ray and emergency power and water supplies. Since the improvised hospital will not occupy all of the Upshur Street building, the Department plans to relocate several of its more crowded existing facilities there also. The only cost of this program to the overburdened District Government would be the heating, lighting and maintenance of the building.

Even this slight cost, however, now looms as a major obstacle. The Commissioners of the District of Columbia are weighing the problem of whether they can afford to keep the building open or whether funds are so short that it must be shut down and boarded. It seems to us that if the Commissioners make the latter decision it is tantamount to saying that there will never be a medical civil defense program in the District of Columbia. It is hard to conceive of any reasonable program that can be supported more cheaply than by merely paying for light, heat and maintenance. If the priority of civil defense is this low, we should openly recognize it. Then the words "civil defense" might truthfully be substituted for the "weather" in Mark Twain's famous remark.

We sympathize with the Department of Public Health, which has been assigned the awful responsibility for providing for medical civil defense but has not been given the necessary funds, personnel and facilities to do the job. Before the Upshur Street site became available the Medical Society officially supported the

Department of Public Health plan calling for such a training center. With an improvised hospital unit now promised free for the asking and with the availability of a suitable building, the plan should be adopted. Certainly, the training center will not be the complete answer to the medical civil defense problem, but, after years of dangerous delay, it is imperative that a real preparedness program be instituted.

ALFRED E. BRIGULIO, M.D.
Coördinator, Medical Care Services

PREMATURITY AND OXYGEN ADMINISTRATION

In the past 15 to 20 years it has become standard practice, in the "more advanced" nurseries of obstetrical hospitals, to administer high concentrations of oxygen to premature infants, with the thought that the incidence of mortality and morbidity would be greatly reduced. During the same period, in 1942 Terry reported a disease-complex called retrolental fibroplasia, which has since become the number one blinding disease of childhood.

Retrolental fibroplasia is an ocular condition which usually occurs in the premature infant, and is characterized at first by constriction of the retinal vessels, followed by gross dilatation, new vessel formation, retinal edema, retinal detachment and distortion, and finally by a dense fibrovascular membrane behind the lens, and in many cases resulting in total blindness. In addition to blindness, glaucoma also frequently occurs, resulting in enlarged painful globes, or shrunken unsightly globes. During the past 10 years well over 100 premature infants in Washington have become totally and permanently blinded.

Although many possible causes of retrolental fibroplasia have been investigated, recent widespread investigations have placed the blame on just two outstanding factors, prematurity and excessive exposure to oxygen. In a recent study of 391 premature infants who weighed less than 1,500 grams, one group was routinely exposed to oxygen concentrations of 50 per cent or more, while the other group was given no oxygen or, at best, less than 30 per cent oxygen concentration. Conclusions from this study indicate that "the use of oxygen is significantly associated with retrolental fibroplasia, and that mortality is not affected by limiting the use of oxygen to that amount thought necessary for clinical emergence."[1] A further interesting conclusion was that "most of the risk of contracting the disease was incurred by exposure to oxygen in the first week of life."

In spite of the fact that the danger of exposing the premature infant to oxygen has been suspected for several years, and rather well proven for the past 2 years, oxygen is still being used for some premature infants in the Washington area with disastrous results.

It seems wise to state categorically that: 1. Oxygen in concentrations over 30 per cent should not be used for the average premature infant, and any extra oxygen often is unnecessary. 2. When the premature infant's general condition makes extra oxygen necessary, it should be used in the lowest concentration and for the shortest length of time consistent with avoiding cyanosis. 3. The failure to use oxygen does not increase the mortality rate in premature infants.

With these words of advice from a multitude of clinical and laboratory investigators, it would appear that the leading cause of infantile blindness is on its way out.

F. D. C.

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Fifth Midwinter Seminar

OF

THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

February 14, 15 and 16, 1956

MEDICAL SOCIETY BUILDING 1718 M Street, N.W.

Dr. Frazell

Dr. Crile

Dr. McClintock

CAT.
CAT.
CAT.

DISEASES OF THE THYROID GLAND

TUESDAY EVENING, FEBRUARY 14, 8 P.M.

W. Ross Morris, M.D., *Presiding*

President, The Medical Society of the District of Columbia

Indications for the use of I^{131}

E. Richard King, M.D.
Captain (MC), U. S. Navy; Head of the Radioisotope Laboratory, U. S. Naval Hospital, Bethesda, Maryland

The Diagnosis of Thyrotoxicosis

Joseph E. Rall, M.D.
Chief of the Clinical Endocrinology Branch of the Arthritis Metabolism Institute, National Institutes of Health, Bethesda, Maryland

Medical Management of Thyrotoxicosis

Laurence H. Kyle, M.D.
Associate Professor of Medicine, Georgetown University School of Medicine, Washington, D. C.

Acceptable Morbidity in Thyroid Surgery

Ernest A. Gould, M.D.
Senior Attending Surgeon, Garfield Memorial Hospital, and Clinical Instructor in Surgery, George Washington University School of Medicine, Washington, D.C.

Discussion Period

WEDNESDAY EVENING, FEBRUARY 15, 8 P.M.

Wallace M. Yater, M.D., *Presiding*

Chairman, Executive Board, The Medical Society of the District of Columbia

THYROID DISEASE IN PEDIATRICS

John C. McClintock, M.D.
Assistant Clinical Professor of Surgery, Albany Medical College, Albany, New York

THYROID DISEASES IN OBSTETRICS AND GYNECOLOGY

Lawrence A. Rapee, M.D.
Attending Physician, Garfield Memorial Hospital, Washington, D.C.

THE DIAGNOSIS OF THYROIDITIS

Gustavus H. Klinck, M.D.
Pathologist, Armed Forces Institute of Pathology, Washington, D.C.

THE TREATMENT OF THYROIDITIS

Brooks G. Brown, M.D.
Attending Surgeon, Garfield Memorial Hospital, and Clinical Instructor in Surgery, George Washington University School of Medicine, Washington, D.C.

THURSDAY EVENING, FEBRUARY 16, 8 P.M.

PANEL DISCUSSION ON THE DIAGNOSIS AND TREATMENT OF NODULAR GOITER AND THYROID CANCER

Theodore Winship, M.D., *Moderator*

Senior Attending Pathologist, Garfield Memorial Hospital, Washington, D. C.

George Crile, Jr., M.D.
Department of Surgery, Cleveland Clinic, Cleveland, Ohio

Edgar L. Frazell, M.D.
Associate Attending Surgeon, Head and Neck Service, Memorial Center, New York, New York

Calvin T. Klopp, M.D.
Assistant Clinical Professor of Surgery, George Washington University School of Medicine, Washington, D.C.

John C. McClintock, M.D.
Assistant Clinical Professor of Surgery, Albany Medical College, Albany, New York

Plan to attend the

SOCIAL HOUR

THURSDAY EVENING, FEBRUARY 16, 1956

Following the Scientific Program

REFRESHMENTS

This will afford an excellent opportunity to get acquainted with your fellow physicians.

D. C. SOCIETY FOR CRIPPLED CHILDREN

Organized 22 years ago by a group of public-spirited citizens, the District of Columbia Society for Crippled Children first confined its activities to individual assistance, transportation and the coördination of services designed to assist these handicapped children.

Later, in 1942, realizing the lack of adequate facilities for training children of nursery and kindergarten age who were suffering from cerebral palsy, a school for these children was established. Two years later this was supplemented by monthly clinics conducted by a recognized cerebral palsy specialist. Principally for the convenience of those children attending the school, speech, physical, and occupational therapy departments were added. Others who are unable to obtain the proper treatment elsewhere are treated on an outpatient basis.

A unique feature of the Society's program is that it is not restricted to the physical development of the child but is aimed toward the coördination of his temperament, intelligence, and character, with the hope of producing in each child a satisfactorily balanced and wholesome personality.

In 1950 a medical director was appointed and the clinical facilities were expanded. With one exception, the anticonvulsive clinic, the purpose of the clinics is to obtain sufficient information to evaluate the whole child. The demand for the anticonvulsive clinic was recognized because of the occurrence of convulsive seizures in a large percentage of the patients, and a necessary procedure is the control of the seizures before other types of therapy can be instituted. In 1953 the demand for services was so extensive that an additional cerebral palsy consultant was appointed.

During the past year 581 children received services. As to residence, they were more or less evenly distributed throughout the entire Metropolitan Area: 298 resided in the District, 131 in Virginia, 152 in Maryland, and 11 in other states.

Of a total of 1,649 clinic visits during 1954–55, 847 were to the Cerebral Palsy Clinic, and of these, 176 were for patients entering for the first time. Physicians referred 407 children. The referring organizations of the remainder represent a cross section of the clinical facilities of the community. Of the total number of children treated (581), 84 per cent were found to have some manifestation of cerebral palsy.

In the School 108 children were enrolled, with a daily attendance of 74. The department of physical therapy administered 4,524 treatments, speech therapy 3,264, and occupational therapy 2,411, making a total of 10,199 sessions. A complete battery of psychologic tests was obtained from 228 children. This was supplemented with parent counseling.

A report of a pilot study indicates that this coördinated type of program obtains exceptional results. There is also every indication that the entire staff, consisting of a psychologist and coördinator, a school principal and assistant coördinator, 2 speech, 2 physical and 1 occupational therapist, and 3 medical secretaries are employing the proper scientific approach to the problem.

Moderating the entire program is the Scientific Council. Its members conduct the special clinics and they also serve in an advisory capacity. They are recognized specialists in their particular field.

The Board of Directors consists of business and professional men and women of the community. The Society is financed by the sale of Easter Seals and personal contributions; 90.5 per cent of the receipts are used in the Washington Metropolitan Area.

William P. Argy, M.D.
Medical Director, District of
Columbia Society for Crippled
Children, Inc.

In and Out of Focus

BY THE OBSERVER

Retirement Income and the Doctor

Physicians, like other citizens, are concerned with financial security in their later years. Most of them are aware of their obligation to provide such protection against the vicissitudes of life for themselves and their dependents as their means will permit.

Although a majority of physicians have better than average incomes in their productive years, few save enough to permit their retirement even at an advanced age. Reasons for this vary but include high living costs, demands made upon doctors and their families because of their social status, the high overhead of conducting a medical practice, high taxes, and the lack of incentive to save. Not all of these factors are peculiar to physicians, nor can all of them be considered valid reasons for their failure to provide for the needs of old age. Nevertheless, each to a more or less degree has a bearing on the situation.

When the American Medical Association interested itself in this problem, it recognized that the incentive factor was one of the most important. However, it also took the position, along with the American Bar Association and several other organizations, that the self-employed were being discriminated against when they were not granted the same privileges as the employed and their employers, who are not required to pay current incomes taxes on contributions to pension funds and annuities.

The AMA first supported legislation which would rectify this situation in 1951. It failed of enactment; however, what later were known as the Jenkins-Keogh bills were introduced and endorsed by the AMA.

Hearings were held on these and related bills by the House Ways and Means Committee on June 27 and 28, 1955. Since then they have been made a part of a revenue measure which is pending before the Committee.

Perhaps it would be helpful to a number of our readers if this legislation were described in its essentials. The amended revenue measure as it now stands: "(1) excludes the pensionless employed but takes in all self-employed, (2) allows up to 10 per cent of earned income, but not more than $5,000.00, each year to be set aside and excluded from taxation until such time as a person retires, (3) sets a lifetime maximum of $100,000.00 for any one person, (4) permits combinations of an annuity contract with a life insurance policy, with tax deferment only on the annuity portion, and (5) permits use of a bank as custodian of retirement funds."

Although there would be an estimated loss in revenue to the United States Treasury of from $100,000,000.00 to $600,000,000.00 if this legislation were enacted, it would, as stated above, rectify an injustice to a large body of citizens, including physicians, dentists, veterinarians, architects, business men and farmers.

The AMA points out that setting aside of up to 10 per cent of income is of itself a modest proposal when compared with the situation among the employed. The Treasury Department during the House hearings of last June reported on a study of 8,568 pension plans in industry. It disclosed that in at least 10 per cent of these plans, the employers contributed aggregate amounts exceeding 16 per cent of the salaries and wages of the covered employees.

Whether or not the Congress will be sufficiently impressed by the self-employed's case to enact the proposed legislation remains to be seen. The AMA states in a recent bulletin that it "is hopeful that the time is drawing near when it will no longer be an economic sin to be self-employed."

Mitchell Spoofs Doctors

There is one rule in public speaking which goes something like this: In beginning a speech, never apologize for your inadequacies as a public speaker. Directing attention to them is indicative of a lack of confidence or of false modesty, either of which places you at a disadvantage with the audience.

There is, of course, always the exception to the rule. This was demonstrated very effectively by Dr. Howard Mitchell (Doctor of Music), distinguished conductor of the National Symphony Orchestra, at a luncheon given by George Washington University Medical Society during the 25th ANNUAL SCIENTIFIC ASSEMBLY. In the opening remarks of his talk he made a point of the fact that he felt "quite inadequate to the task." Then he put this reverse twist on it: "Speechmaking by members of the medical profession is nothing new, because, so far as I have noticed, you doctors orate either to or about your patients all day long and often far into the night. But in the life of a symphony conductor, making a speech is comparable to a major operation. What comes out may not do anyone any good, but then again, it might. I suppose this impulse some conductors have for speechmaking springs from a desire to have an audience in front of you once in a while, rather than behind you. You must know that an audience to a conductor represents the same thing as a patient does to you. Both are basic essentials to our professions."

With this disarming introduction, he proceeded to give a most entertaining and, in part, instructive talk on "Music and Medicine," in which he demonstrated that he is as much at home on the rostrum as on the podium.

Calling attention to the fact that he had been introduced with the title "Doctor," he said: "Perhaps you think it presumptuous of me to appear under this label amid a distinguished body of bona fide medical doctors. If so, it becomes important for me to remind you that the medical arts are really but a minor branch of the musical arts. As any anthropologist can tell you, the first doctors were often, if not usually, musicians. You will find living proof of this fact by checking with the native doctors attending remote tribes in Central Africa or along the interior country of the Amazon.

"Musicians, of course, were using catgut to string their lutes and lyres long before some frenzied apprentice surgeon borrowed a lute string from a musical friend in order to sew his patient back together again, thus inventing the suture. And long before Dr. Morton's effective demonstration at Massachusetts General Hospital, musicians in concert halls had found a foolproof way to apply general anesthesia to people by the thousands. Indeed, we musicians and you doctors have a common ancestor—the barbershop. The early barbershop left you the leech and left us the male quartet."

Dr. Mitchell placed special emphasis on "the community of interests" between musicians and physicians. He said, "At times, . . . members of one of these professions become expert in the other's field. And in all fairness to you, I think I should tell you that at times I have considered myself an authority in the field of medicine. You see, I have kept abreast of the latest developments by reading the many articles in the *Reader's Digest* on science and the art of medicine. Many of my doctor friends have told me that these articles have been something of a headache to them, in that patients have suddenly come up with diseases or cures of which they had never heard. Somehow or other, this never concerned or bothered me.

"I was always willing to believe the printed word and hoped you boys would some day catch up with the *Reader's Digest*. However, a couple of months ago my faith in the *Digest* was badly shaken when I read an article about a certain symphony orchestra which attempted to prove that conductors were not necessary. Even worse, it said symphony orchestras played much better without them. Now this is an alarming situation, calling for a reappraisal of the value of the printed word.

"In all honesty, however, I should confess that this article only confirmed a remark which the famous composer Paul Hindemith recently made to a reporter. On an occasion when he was guest conducting one of his own works, he was asked if he had given up composing for conducting. He replied: 'You ask me a question like that, when all my life I have struggled to be an honest musician—and now you want me to be a conductor.'

"The sad sequel to this remark is that nearly all of these composers are getting into the act. To name a few, Stravinsky, Hindemith, Copland, Hanson, Shostakovich, Barber, Bernstein, and any number of other composers. All of them are conducting. I tell you, if you get enough of these honest musicians in the field of conducting, there is going to be no room left for the conductors."

What did he think of doctor-musicians? "I know some doctors of medicine who like good music. There are not as many as I should like, but those whom I know have never had any trouble convincing me that they were just a little superior to other doctors simply because they were fond of good music. And then, I know a few doctors who actually play an instrument. Of course, just between us doctors, I have a secret suspicion that they have taken up instrumental playing as the safest of the do-it-yourself fads. Anyway, I helped to launch the first medical doctors' orchestra last May, and after hearing them play just one rehearsal, I quickly deducted that these were the finest doctors in the profession. Profound conclusions like these result from a conductor's incomparable logic."

At this point, Dr. Mitchell gave his audience a brief dissertation on the elements of good music: "First, let me say, music is order in sound and time. Order in sound, so I am told, is the contradiction of chaos; and, as any psychiatrist knows, in order there is sanity. Music, as I have said, is also order in time. I can still hear Toscanini scream to members of his orchestra, 'In tempo! In tempo!' In other words, he was demanding order in time. For him, tempo was the heartbeat. I am sure you will agree that the steadier the tempo, the healthier the heart. Great music is then primarily this—order in sound and time.

"Secondly, music is more than just order in sound and time. Great music is the embodiment of human purpose, always seeking to reach the universal and essential elements of life. This quest, this seeking—whether by the philosopher, the scientist or the artist—is the beginning of all knowledge as well as the beginning of all great art. It springs in great part from the intangibles of life, something which even the scientist or philosopher has as yet been unable to measure. None the less, these imponderables and elements of our experience represent values which have great bearing upon reality. A great piece of music, I think, proves my point. Because of the higher consciousness of the artist, as evidenced not only by his capacity to bring order into sound and time, but also his unique insight into the mysteries of life, he is able to convey that which cannot otherwise be conveyed.

"This leads me to the third thing I want to say about music. The greatest music is the people's music. Music is great not because certain self-appointed custodians of art (sometimes called conductors) have decreed it so, but because it calls out something deep and persistent in the human being. A Beethoven symphony, for example, does not remain in the repertoire of orchestras all around the world because conductors cannot learn other scores. (This statement will contradict what you are apt to read from any critic on any given Sunday.) It remains because it has imperishable beauty and significance."

Dr. Mitchell closed with a plea for his National Symphony Orchestra which is celebrating its 25th anniversary.

"I can truthfully say in our 24 years of active practice our patients return week after week. We have never lost one, through death, that is, while taking our therapeutic treatment. So I extend a most cordial and warm invitation to all of you to share the joys of music this season with your Orchestra."

★

"a Specialist in Me"

If one were to believe writers on the subject, the family doctor whose virtues have become legendary has gone the way of the dodo. In other words, he is extinct, for he belongs to the era of whiskers and the horse and buggy. We are told that he was a man of inexhaustible patience, good humor, and sympathetic understanding whose like we shall not see again.

Making allowances for the romantic aura

which usually surrounds greatly beloved figures of the past, this is a reasonable facsimile of the doctor of another day, and the medical profession is proud of him. But the assertion that the primary virtues which he possessed were lost with his passing is, of course, fiction! Popular conceptions to the contrary, the revered family doctor is still with us. Fortunately, he is far better equipped scientifically to care for his patients than his predecessor.

One of the outstanding examples in the District of Columbia is Dr. R. Lee Spire. He not only possesses the most desirable qualities characterizing the legendary family doctor but in the course of his 50 years of practice he has earned the respect and affection of hundreds of patients and, what he prizes a great deal, that of his fellow doctors.

As evidence of their high regard for him, his colleagues in the Medical Society's Section on General Practice, of which he was one of the founders (1948), recently recommended his nomination for the AMA's General Practitioner of the Year. The nomination was unanimously approved by the Executive Board and forwarded with supporting data to the Association's headquarters. Final choice of the physician to be honored will have been announced long before these lines appear. The occasion on which the announcement will be made is the Association's Clinical Session, which this year will be held in Boston, November 29 to December 2.

Dr. Spire's natural aptitude for his profession was demonstrated in his college days at the time he was a student at Hiram College, Hiram, Ohio, where he was studying for the ministry. Here, as related by Dr. Spire, is how he came to abandon his religious studies for that of medicine.

Toward the end of his third year, his professor of physiologic psychology stopped him one day and said, "Spire, I want to see you after class." Naturally concerned, he inquired, "Dr. Page, what have I done?"

"Done? Done nothing," came the reply, "What are you doing for dinner?"

During dinner the professor asked his student, "Whoever told you you should study to be a preacher?" He explained that his family had expected him to and he had taken it more or less for granted.

"Spire," the professor said, "you've been in my class for some time and I've been watching you. You are a natural born doctor. I am a doctor and I know you will make a good one. Write your father what I say."

R. LEE SPIRE, M.D.

Monday morning came the news that his father had died. His days at Hiram College were over, for he had to return home to help support his mother and two younger brothers.

In the years that followed Dr. Spire worked at night in the Post Office Department, while his days were spent at Columbian College, now George Washington University, studying medicine. Among his teachers were Drs. Walter Reed and James Carroll. As he remembers it, they had a profound influence on him.

Most physicians at that time started practicing when they graduated from medical school. However, Dr. Spire spent several months as an intern at Emergency Hospital. Here he met and worked with men who have continued through the years to be his close friends.

He opened his office at 1609 North Capitol Street in 1908. At that time he exchanged the bicycle on which he had been making calls for a two-cylinder Maxwell with no windshield and no top.

In those days fifteen dollars was the usual fee for a delivery and babies were born at home unless the delivery required high forceps or cesarean section. Dr. Spire's first hospital delivery was also the first cesarean section performed by Dr. Charles Stanley White. Both mother and son survived, the latter now practicing dentistry in Washington. Altogether, Dr. Spire says, he has delivered over 3,000 babies.

In describing general practice in Washington during the early 1900's, Dr. Spire went on to say, "We did almost all our tonsillectomies in the home. We put the patient on an ironing board supported by a couple of barrels. I have snared out hundreds under such conditions."

Like many professional men, Dr. Spire is unstinting in his praise of his wife, who has been a tireless and indispensable helpmate during most of his professional life. "My wife," he says, "had no medical training, yet she helped me set broken bones and sew up cuts. Only once did she faint and that was when they brought in a boy whose scalp had been torn exposing his skull down to his neck. It's a hard life for a woman to be a doctor's wife, but mine has always been understanding, helpful and tolerant."

Dr. Spire was one of the first physicians in this country to use salvarsan in the treatment of syphilis. Paul Ehrlich, the discoverer of the drug, had a friend in Germany and Dr. Spire had a friend in the United States, and these two friends were friends themselves. So, before Ehrlich's work had been translated into English, three tubes of the first salvarsan to reach the United States were sent to Dr. Spire. He found the German publications by Ehrlich in the Army Medical Library and had to translate them before administering the drug to his patients.

Naturally, Dr. Spire feels strongly about the importance of a close personal relationship between a physician and his patients. He says that 20 per cent of his practice today consists of families whom he has been attending for over 45 years. For 44 years, Dr. Spire remained within a few blocks of his original office. Many of his patients recall that he closed his office from November until March in 1918 to treat the sick and dying during the flu epidemic.

Some of his observations about medical practice are of considerable interest not only to the physicians of his generation but to those of the present. Here are just a few:

"The fee problem was never one of my primary considerations. The doctor who makes fees his main consideration never gets anywhere in medicine. The man who concentrates on the money will lose the feeling of confidence which a good doctor must generate in his patients.

"Too much premium has been set on specialization. Specialists and general practitioners should operate as a team—the general practitioner carrying the ball and the specialist running interference and blocking out tacklers too tough for the GP to handle.

"Long ago one of my patients said something I have never forgotten. Speaking of doctors she said, 'I want a specialist who is a specialist in me.' "

The years have not dampened Dr. Spire's enthusiasm nor have they visibly diminished his physical energies. One is impressed by the fact that he is alert and interested in all things pertaining to his profession. He is also a very active member of the District Medical Society, serving on one of its most important committees, the Grievance Committee, and as a member of the Editorial Board of the MEDICAL ANNALS.

Your Observer cannot conclude these comments without a personal note. He has known Dr. Spire for many years. He, too, holds him in the highest regard for his integrity and his dedication to what is best in medicine. Patients, he has often thought, must not only find in Dr. Spire a sympathetic and wise counselor, but a sincere and loyal friend.

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"Barriers... Broken Down"

There is no more ardent champion of women in medicine than Dr. Josephine Renshaw. Frequently during the seven years she has engaged in the practice of her specialty in Washington, she has pleaded with her women colleagues to take full advantage of the opportunities open to them. She has consistently taken the position that professionally they are equals of their male counterparts. However, she has not allowed it to go at that. She has by example demonstrated the possibilities open to physicians of her sex.

Her insistence that proper recognition be given women physicians and her willingness and ability to demonstrate what can be accomplished by them in a field usually reserved for male physicians undoubtedly were factors in her being chosen Medical Woman of the Year by the District of Columbia Branch of the American Medical Women's Association. This was intimated in a news story appearing in the *Washington Post and Times Herald* on November 13 in which Dr. Renshaw's recognition by her fellow practitioners was announced. In it, Dr. Renshaw was quoted as saying, "The barriers against women doctors have been broken down. A woman who wants to go into medicine nowadays has very little to fight. Naturally, she needs some determination, but you need that to make good in any career. But they can't and don't keep a good woman out of the medical profession."

Dr. Renshaw first became known to a large number of Society members when she was appointed Chairman of the Committee on Public Information. As has been stated on a number of occasions, she is the first woman to head a standing committee of the Society. She held this post for three years, proving conclusively what can be accomplished by initiative, enthusiasm and ability. These qualities not only made a favorable impression on her confreres in Washington but on medical groups wherever she went.

It was during this period that your Observer had an opportunity to observe her work. He came to admire not only her courage but her understanding of problems facing the medical profession. She recognized instinctively what was necessary to win public approval. Your Observer was especially pleased with her reception when she addressed professional groups on her favorite topic at the time—how to improve medical public relations. She invariably made a fine presentation and, of course, was as glamorous a representative as the Society has had.

JOSEPHINE RENSHAW, M.D.

When her tenure of office expired, she could look back upon her service with much satisfaction. She had pioneered as a leader in a field largely reserved for men and had made good. She is at the present time a member of the Committee on Public Policy where her experience should prove very useful.

Dr. Renshaw was born in Pittsburgh, Pennsylvania, where she received her early schooling. She attended the University of Wisconsin, where she received her B.S. degree in 1932. In 1933 she obtained her M.S. degree at Wellesley. Shortly following her graduation she became a member of the faculty at Pomona College, Claremont, California, where she taught for some two years. Upon leaving the College, she seriously considered studying for a Ph.D. However, she came to the conclusion that because this would require an enormous amount of work, she would study medicine. She enrolled in the University of Maryland Medical School from which she was graduated in 1943. Internships at Maryland University and Johns Hopkins University hospitals followed.

She entered practice in the District of Columbia in 1948, specializing in obstetrics and gynecology. Some years later she became a diplomate of the American Board of Obstetrics and Gynecology. For a number of years she has been a member of the attending staff at Garfield Hospital, Washington, D. C.

Dr. Renshaw was one of 15 physicians chosen by their local chapters as the Medical Woman of the Year. In Cincinnati, Ohio, on November 13, at a meeting of the American Medical Women's Association, she together with the others received a citation which read, "In recognition of outstanding contributions to her profession, her community and to her fellow human beings."

All those who know "Jo" will agree that no more appropriate words could be used to describe her activities in the field of health. What is particularly pleasing about this citation is that it was presented to her at the beginning of her most productive years. It can truly be said of her that the best is yet to come.

How Old Can You Get?

The implications of our aging population have been subject to wide discussion. The ever-increasing number of people over 65, the arbitrary age which is supposed to mark the dividing point between activity and retirement, has been of deep concern to public officials, business men, and in fact everyone in a position of responsibility—but most of all to the oldsters themselves. What are their future prospects? Will they become increasingly unemployable? If so, what will be their source of livelihood? How can they maintain their morale when not gainfully employed?

As if these questions were not disturbing enough, another element has entered the picture. That is the probability that life expectancy will be extended beyond what has been thought possible. Some scientists predict that the century mark or very near it is a distinct possibility for the average person. One can only conjecture, for example, the problems which would arise in a population whose average life span were in the 90's.

According to the *Statistical Bulletin of the Metropolitan Life Insurance Company*, "The continuing decline in mortality since the turn of the century has brought better chances of survival to each successive generation of Americans. Approximately three fifths of the males who became 20 years of age in 1910 will celebrate their 65th birthday in 1955. This is a considerable improvement over the prospects of those born at an earlier date. The *Bulletin* observes that the prospect of men born in 1880 "living through the working ages of life," 20 to 65, was not as favorable, only 50 per cent surviving.

Survival prospects at middle age have improved considerably. "The proportion surviving from age 40 to 65 increased from 63 per cent for the men born in 1860 to 68 per cent for those born in 1890."

As for women, 68 per cent 40 years of age in 1900 survived to age 65 as compared to 63 per cent of the male population. Of the women reaching the age of 40 in 1930, 79 per cent celebrated their 65th birthday as against 68 per cent for males. Reasons ascribed by the *Bulletin* for this difference in life expectancy are that "lower mortality [is] normally experienced by women" and that they are "not generally exposed to the hazards of war." Pointed out also is the fact that their longevity has increased with each succeeding generation.

As to the outlook for men who have reached 65, they have several years' life expectancy. For example, of the men who became 65 in 1935, 79 per cent survived for at least 5 years, 57 per cent for 10 years, and more than 18 per cent for at least 20 years. Here again women fared better, for in this same age group five sixths lived to age 70 or beyond and one fourth celebrated their 85th birthdays.

"How much more favorable the actual record will turn out to be will depend upon many factors, among them further advances in the medical sciences and the rapidity with which they are extended to all segments of the population. Appreciable gains might also occur among men at the older ages, for whom mortality rates have thus far shown relatively little tendency to change."

Dr. Hardin B. Jones, Professor of Biophysics at the University of California, had some statistics to offer a short time ago on the prolongation of life. He warns, however, that his figures are based on statistical averages and don't necessarily apply to any particular individual but to populations as a whole. If all infections could be eliminated, most radiation and bad habits like smoking avoided, Dr. Jones said, the average life expectancy in this country would be raised from approximately 70 years to 85. "If there were no checks on the bank account whatsoever," he said, "and wars and accidents could be eliminated, theoretically the average human being might live 1,000 years."

There are too many if's and impossible conditions to make these observations of significance. Ironically, the headline of the news item which followed the above read, "Woman Chain Smoker Dies at 108 in Hawaii."

Eliminating the theoretical, there still remains sufficient evidence that in the light of medical progress there is every reason to believe that the average age will be considerably increased, and as a result society will be confronted with one of its most serious problems.

T. W.

SPECIAL REPORT OF THE EXECUTIVE BOARD*

As usual at special business meetings of the Society, the Executive Board's report contains only items which the Board feels should receive immediate attention.

Approval of Group Professional Liability Insurance Policy Underwritten by the St. Paul-Mercury Indemnity Company: In accordance with instructions of the Executive Board, the Committee on Professional Liability Insurance took steps to negotiate and recommend an improved professional liability insurance program for the membership of the Medical Society.

Twenty-two insurance carriers were contacted in an effort to obtain the best possible contract. After a thorough investigation of the two proposals submitted, the policy developed by Mr. Don C. Hawkins, Assistant Secretary of the St. Paul-Mercury Indemnity Company, in coöperation with the American Medical Association and the American College of Surgeons, was selected. It has been carefully studied not only by members of the Committee but by legal counsel and is believed to be superior in several respects to any previously presented to the Society.

At a meeting on August 22 your Board reviewed the findings of the Committee and heard the Chairman discuss the proposed contract. The Board voted approval of the recommendation of the Committee that the St. Paul-Mercury Indemnity Company's group professional liability insurance policy be endorsed by the Society.

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* Adopted at a special Business Meeting of the Medical Society of the District of Columbia, September 21, 1955.

Election of Dr. William S. Middleton to Honorary Membership: Dr. Middleton was proposed for Honorary membership at the Annual Business Meeting of the Society on May 4, 1955 and approved by the Board of Censors on May 20, 1955. As previously stated to the Society, Dr. Middleton is Chief Medical Director of the Veterans Administration and one of the country's distinguished physicians.

After serving as instructor, assistant professor and associate professor of clinical medicine at the University of Wisconsin, Dr. Middleton was made Dean of the Medical School in 1935.

He served on active duty with the U. S. Army Medical Officers Reserve Corps during World War I and was Chief Consultant in Medicine in the European Theater during World War II. For his war service Dr. Middleton was awarded the Distinguished Service Medal, the Legion of Merit, and the French Croix de Guerre with Palms. He was given the Wisconsin State Medical Society's Council Award in 1938 and holds an Alumni Award of Merit from the University of Pennsylvania. He is also a Master and former President of the American College of Physicians.

The Board is pleased to recommend Dr. Middleton's election to Honorary membership.

Election of Major General Silas B. Hays to Honorary Membership: General Hays was proposed for Honorary membership at the Annual Business Meeting of the Society on May 4, 1955 and approved by the Board of Censors on May 20, 1955. He succeeded Major General George E. Armstrong as Surgeon General of the Army.

General Hays received his commission as First Lieutenant with the Medical Corps in 1929. He has been assigned to Letterman General Hospital, California; Tripler General Hospital, Hawaii; Walter Reed General Hospital and Soldiers Home in Washington, D. C.; and the New York General Depot, Brooklyn, N. Y. During World War II he served as Chief of Medical Supply in the European Theater and subsequently was Surgeon, Pacific Area and Japan Logistical Command.

General Hays has been awarded the Distinguished Service Medal, the Legion of Merit, the Legion of Merit with Oak Leaf Cluster, the Croix de Guerre with Palms and the Order of Santé Publique by the French Government.

Nomination of Dr. Oscar B. Hunter to the Corporate Membership of Hospital Service Agency: A vacancy in the Society's representation in the Corporate Membership of HSA was caused by the resignation of Dr. W. Ross Morris, President of the Society. The Executive Board recommends approval of Dr. Hunter to fill this vacancy.

Designation of Committee on Vocational Rehabilitation to the Council on Vocational Rehabilitation of the Medical Society of the District of Columbia: At a meeting on September 8, 1955 of the Committee on Vocational Rehabilitation (recently created by the Executive Board), the opportunity for the Society to assume leadership in the rehabilitation field was emphasized. Consideration was given to the possibility of inaugurating a pilot program in the field of total rehabilitation. After reviewing the situation the Committee voted to submit the following recommendations to the Executive Board:

1. That the Committee on Vocational Rehabilitation be renamed The Council on Vocational Rehabilitation of the Medical Society of the District of Columbia, and that the Council affiliate itself with other organizations having to do with the total restoration program of the handicapped.
2. That the Council be authorized to draft a blueprint for a pilot vocational rehabilitation program for the Washington Metropolitan Area.
3. That the Council be authorized to request funds available through the Office of Vocational Rehabilitation of the Department of Health, Education and Welfare to implement this program.

To obtain the funds available it is required that such a pilot program be sponsored by a responsible nonprofit organization. This project does not place any financial obligation on the Society nor does it commit it to a permanent arrangement with the above Government agency.

The Board recommends approval of the above project.

Proposed Amendment XXVII to the Constitution and By-laws. After a thorough investigation of resident-intern salaries locally it was evident to the Executive Board that the limitation of a salary ceiling of $2,400 for this membership was unrealistic in view of present-day conditions. The Board also felt that since citizenship is not required for Associate and Affiliate membership it should not be a requirement for Resident-Intern membership, particularly when so many residents and interns from other countries are serving in our hospitals. The Amendment reads as follows:

AMENDMENT XXVII

Section 1. Section 5, Amendment XVII of the Constitution and By-laws is hereby repealed.

Section 2. Intern or resident membership shall be limited to hospital interns or residents who are not engaged in the private practice of medicine. They shall be elected in the same manner as active members; they shall have the privilege of attending and participating in scientific sessions of the Society and shall receive its publications and notices of its scientific meetings. They shall not vote or hold office in the Society, but shall be subject to its discipline. Intern or resident membership shall terminate if the intern or resident engages in the private practice of medicine, or upon termination of his internship or residency.

This Amendment will be voted on at the next Business Meeting.

Proposed Amendment XXVIII to the Society's Constitution and By-laws: The Secretary called the Board's attention to the fact that there were contradictions in Amendment XI to the Constitution and By-laws, which relates to the procedure to be followed in electing new members. At one point in the Amendment it states, "All applications for membership shall be made in writing on a form provided by the Society, endorsed by three Active members of the Society, none of whom shall be a member of the Board of Censors, and sent to the Secretary, who shall present their names at a subsequent business meeting of the Society and send a list of their names to the members of the Society." There follows this provision, "All applications for membership shall be promptly delivered to the Board of Censors, who shall inquire into the standing of each applicant. The Board of Censors shall notify the Society of the application and shall allow a period of two months within which the members of the Society may register their approval or disapproval with the Board of Censors."

Up to this time the procedure followed has been to hold all applications until they have been read at a business meeting of the Society. Recently the contradictory requirements of the Amendment were discussed by the President and the Secretary, the former approving the interpretation that all that was required was notification to members by mail of the names of the applicants for membership. However, it was agreed that it was essential that this Amendment be rewritten to be more explicit. The Amendment reads as follows:

AMENDMENT XXVIII

Section 1. Section 2, Amendment XI of the Constitution and By-laws is hereby repealed.

Section 2. There shall be elected at the Annual Meeting of the Society a Board of Censors, one of whom shall be elected for a term of three years, one for two years, and one for one year. At each Annual Meeting thereafter, there shall be elected one Censor for a term of three years. Applications for membership shall be made in writing on a form provided by the Society, endorsed by three Active members of the Society, none of whom shall be a member of the Board of Censors, and sent to the Secretary, who shall present their names at a subsequent business meeting of the Society or send a list of their names in writing to the members of the Society. A period of two months shall elapse within which the members of the Society may register their approval or disapproval with the Board of Censors. All applications for membership shall be promptly delivered to the Board of Censors, who shall inquire into the standing of each applicant. After the elapse of the said two months, the Board of Censors shall report in writing to the Executive Board, recommending the election of satisfactory applicants. The Executive Board, within thirty days, shall vote upon the election of each applicant and by a majority vote may elect the applicant to Active membership for a period of one year. After election, each applicant shall, within three months, sign an obligation to be governed by the Constitution and By-laws of this Society and pay the dues for the current calendar year. On the expiration of the one year period of membership, the Executive Board shall report thereon to the Society and the Society may elect by a majority vote each one-year Active member to full membership in the Society.

This Amendment will be voted on at the next Business Meeting.

Definition of Pathology and Laboratory Medicine: The Section on Pathology and Laboratory Medicine, of the Medical Society submitted to the Executive Board the following resolution to define and delimit the practice of pathology and laboratory medicine, with the request that it be endorsed by the Society and circulated to the membership and local hospitals:

WHEREAS, The Section on Pathology and Laboratory Medicine of the Medical Society of the District of Columbia does believe that it is necessary to define clearly and to delimit the practice of pathology and laboratory medicine:

Therefore be it resolved that the Section on Pathology and Laboratory Medicine of the Medical Society of the District of Columbia endorses without reservation the following statements as defining and delimiting the standards of practice in the field of Pathology and Laboratory Medicine in the area of the District of Columbia:

1. The practice of Pathology and Laboratory Medicine is a part of the practice of medicine, and no part of it can be separated from the practice of medicine.

2. The practitioners of Pathology and Laboratory Medicine must so practice as to conform with the ethics of and the professional and governmental regulations bearing upon the practice of medicine, including licensure in the healing arts.

The only exceptions to these licensing provisions shall be residents or other physicians pursuing postgraduate training in medical education programs who are not required to be licensed as practitioners of medicine during their postgraduate training in the geographical area of their training, and those practicing in Government hospitals and institutions where their positions require only a Doctorate in Medicine.

3. Pathology and Laboratory Medicine deals with the diagnosis, observation and understanding of the progress of disease or medical condition in the human subject by means of information obtained by morphologic, microscopic, chemical, microbiologic, serologic, immunologic, hematologic or other types of laboratory examination made on the patient or on any material obtained from the human body. It includes the testing, analysis and/or observation of a patient or of any material obtained from the human body, in order to determine the cause, nature, or effects of disease and to distinguish the normal from the abnormal. It embraces all procedures necessary to accomplish the above functions.

4. Pathology and Laboratory Medicine is both technical and interpretive. Technical procedures may be delegated to trained individuals only under the direct supervision of a practitioner of medicine. Under no circumstances shall any trained individual not a practitioner of medicine to whom the performance of a technical procedure may be delegated be responsible for or permitted to prepare or issue an interpretation of the results of that procedure.

The interpretive function of Pathology and Laboratory Medicine cannot be exercised by anyone other than a practitioner of medicine. The practitioner of laboratory medicine is and must be completely responsible for the entire performance of his practice, whether or not technical portions of it are delegated to other individuals.

5. Due to the peculiar position of the practitioner of Pathology and Laboratory Medicine in respect to the availability of material for the study of disease, it is incumbent upon him to extend his personal services to others of his profession and to those preparing to enter the various fields of medical practice in order to provide information in those fields of medicine in which he is expert.

This resolution affirms that the practice of pathology and laboratory medicine is a part of the practice of medicine and its practitioners must conform to the ethics and professional and governmental regulations including licensure (with the usual exceptions applying to licensure, i.e., residents, Government physicians, etc.).

It states in paragraph 3 that: "Pathology and Laboratory Medicine deals with the diagnosis, observation and understanding of the progress of disease or medical conditions in the human subject by means of information obtained by morphologic, microscopic, chemical, microbiologic, serologic, immunologic, hematologic or other types of laboratory examination made on the patient or on any material obtained from the human body. It includes the testing, analysis and/or observation of a patient . . . to determine the cause, nature, or effects of disease . . . " and further in paragraph 4 that: "Pathology and Laboratory Medicine is both technical and interpretive." It provides that technical procedures may be delegated to trained individuals only under direct supervision of a practitioner of medicine who will be responsible for their performance but that "the interpretive function of Pathology and Laboratory Medicine cannot be exercised by anyone other than a practitioner of medicine."

Paragraph 5 makes it incumbent upon the pathologist "to extend his personal services to others of his profession and to those preparing to enter the various fields of medical practice in order to provide information in those fields of medicine in which he is expert."

At its meeting on February 28, 1955, the Board voted approval of the Section's resolution after some changes it had recommended were made. The Board recommends that the Section's resolution, as revised and outlined above, be sent Society members and local hospitals as requested.

Respectfully submitted,
WALLACE M. YATER, M.D., *Chairman*
RALPH M. CAULK, M.D.
KARL C. CORLEY, M.D.
HUGH H. HUSSEY, M.D.
PRESTON A. MCLENDON, M.D.
W. ROSS MORRIS, M.D.
HERBERT P. RAMSEY, M.D.
THEODORE WIPRUD, *Secretary*

THE VETERANS ADMINISTRATION HOSPITAL PROGRAM*

WILLIAM B. WALSH, M.D.

Member, Committee on Veterans Affairs, The Medical Society of the District of Columbia

A discussion of the Veterans Administration Hospital Program is always fraught with the hazard of misunderstanding, misinterpretation and untoward criticism based upon emotional and political feelings. It seems that the mere willingness to consider that the philosophy behind this program may be unsound makes one subject to the accusation that he is anti-veteran.

I shall attempt, therefore, in this presentation to avoid as much controversy as possible and rather to put before you certain basic facts. You may then decide whether this program is a problem for concern.

It would have been more fitting for a member of the Committee on Federal Medical Services of the American Medical Association to make these statements, for he would be representing officially the viewpoint of organized medicine. Unfortunately, in regard to this subject there has been another policy change in the educational program directed toward the American physician, hence you have me as an unworthy substitute. I represent no organization and I do not pretend to be an expert, but I do feel that the facts should be presented to every doctor and every citizen in the country. They should be submitted to the doctors particularly, so that no longer may the critics of the American Medical Association say that the AMA does not represent the opinion of the physicians on this subject. You, gentlemen, are the AMA and you have an obligation to inform yourselves of the medical problems with which our Nation may be confronted.

First, we must establish whether in the Veterans Hospital Program we have any problem. After all, our medical schools, with the encouragement of the AMA, coöperated in the raising of the quality of medical care in the VA hospitals immediately following World War II. They further aided in the expansion of the hospital and residency training programs. Today this is a two-way street. Many of the full-time members of our medical school faculties are dependent upon the VA program for salaries and consultant fees. These fees enable them to teach the doctors of tomorrow. The residency training program of the VA hospitals, in turn, is entirely dependent upon the coöperation of the medical schools. Is residency training the purpose of this program? Can this coöperation be stopped now with the coincident resultant harm to the public relations of American medicine that would accrue from such stoppage? Would the medical schools, for reasons of their own, willingly consider halting this coöperation? Because of these factors we may already be "hoist with our own petard." This is important to keep in mind because of the real sore point in the VA program, namely, the nonservice-connected disability patients. Without the varied pathologic material offered in nonservice-connected cases, there would not be sufficient material for a good residency program.

Before going into this problem let me remind you that the Veterans Hospital and Medical Care Program is second in size only to the Government Medical Plan of Great Britain, which, as you all know, has a socialized medical scheme. The budget of the former, and this is for medical services including hospitals, is $748,000,000 for the fiscal year of 1955. This does not include compensations, pensions and survival benefits, and funds for all other purposes, which together bring the total VA appropriations to close to $4,000,000,000. Is this worthy of your concern?

The Veterans Administration has under its aegis 170 hospitals with an operating capacity of approximately 118,000 beds. It employed, as of June 1953, 6,097 full-time physicians, 936 part-time physicians, 13,799 full-time nurses, and 131 part-time nurses. Do you think that a medical program of this scope is one with which you should be concerned? By and large, the care given in these hospitals is good, partucularly in those cities in which there is coöperation with the local medical schools. Ninety-three are in this category.

Who are the patients being serviced in these hospitals? Of our 22,000,000 veterans, approximately 3,500,000 have service-connected disabilities and are automatically eligible for medical care at any time. This is certainly beyond the pale of criticism, since to whom do we owe more than the disabled or combat-injured veteran? There are at present approximately 18,000,000 veterans who were discharged from the service in good health but who may obtain medical care from the VA simply by signing a form stating that they are unable to pay for private care. This form, by law, cannot be investigated to determine whether the veteran's statement is true. I do not wish to imply here that the veteran lies. However, he is not impressed that this is any more than one of several routine forms he must sign prior to admission. According to the Hoover Commission, better than $500,000,000 was spent last year in caring for nonservice-connected disabilities of 369,000 veteran patients, virtually all services in the general medical and surgical categories. Were these veterans indigent according to the standards set in the locale in which they lived? If in truth they were indigent, were they a Federal or a local responsibility?

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* Presented at the 25th Annual Scientific Assembly of The Medical Society of the District of Columbia, October 10, 1955.

You will be told by some that the Government has historically taken care of its veterans. The care given in nonservice-connected cases dates back some 32 years. At that time there were thousands of empty beds in the then limited Veterans Hospital Organization. It was decided at that time to permit care of nonservice-connected patients on a facilities available basis. Actually, therefore, we are still following an admission policy based upon a decision made when there were more than ample beds for our service-connected cases. Not only has no Congress ever been courageous enough to change this policy, but rather it has constantly expanded medical facilities so that there are always "facilities" available. In fact, we had enough veteran hospital beds in 1933 to hospitalize every service-connected veteran patient up to and including 1954, and this was after the greatest war of our history plus the Korean action. Yet, since 1933 the number of operating beds in the Veterans Administration hospitals has grown from 40,000 to 118,000.

Professional veterans groups have for years maintained that the veteran is a special class of citizen. Is this indeed in keeping with the Constitution and American beliefs that all of us are equal? I personally am a veteran and will fight for certain veterans' prerogatives when they are just, as most of you well know. However, I resent the fact that I am called a special citizen by anyone. Those who made the sacrifice of military service felt that service was a privilege. We were defending our own liberty, not only that of the man next door. Most veterans do not want to be deprived of the satisfaction gained by this service. It is wrong for the rest of the country to constantly be reminded that they owe us something.

Franklin Delano Roosevelt, who was not a conservative president, particularly in matters of public health and welfare, said, and I quote:

"The first principle, following inevitably from the obligation of citizens to bear arms, is that the Government has a responsibility for and toward *those who suffered injury or contracted disease while serving in its defense.*

"The second principle is that *no person, because he wore a uniform, must thereafter be placed in a special class of beneficiaries over and above all other citizens. The fact of wearing a uniform does not mean that he can demand and receive from his Government a benefit which no other citizen receives.*"

Keep in mind that some 80 per cent of the total discharges from VA hospitals fall into this nonservice-connected category.

Just what is a nonservice-connected case? These are veterans discharged from service in good health, with no evidence of any illness or disability contracted in service. They return to civilian life and join the family of American citizens. Do you believe that they are a special group except within the bonds of comradeship? They do not want any advantages other than those embraced in the GI Bill of Rights. These were drawn up in order to give him aid in his readjustment to civilian life, with a limitation of time for the period of his readjustment.

The proponents of an expanding VA Program will tell you that too often the local communities are unable to care for their own indigent patients in the general medical and surgical categories, and particularly in the tuberculous and neuropsychiatric ills. In part this is correct, essentially in the latter two groups. Too often the local community is willing to have the Federal Government assume these responsibilities. We have seen even here in Washington, D.C. a controversy which has waged over the construction of beds for tuberculosis. Yet, it is estimated that we have some 100 veterans in Veterans Administration TB hospitals being treated for pulmonary tuberculosis contracted in many cases long years after discharge. Thank heaven that the VA will take these people. The Federal Government of necessity will continue to expand its facilities in those fields in which the local population ignores its own responsibility. The insidious side of the principle to be considered is, why should the Federal Government not hospitalize every patient with neuropsychiatric or tuberculous illness? If we object to the classification of the veteran as something special, we must offer the same advantages to all citizens. This is the subtle trend which can be perceived in this vast program.

It is not the wish of the Veterans Administration to have socialized medicine in this country. It is not the wish of the American Legion or any other veterans organization to have socialized medicine. In fact, the American Legion was one of our profession's greatest allies in its fight against a Government-run medical program. However, with our veteran population increasing by approximately 1,000,000 citizens per year, it is inevitable that virtually all adult males will eventually be eligible for Government medical care. In fact, close to half of the adult male working population is already eligible for this Government medical care.

It would not be prudent in the time allotted to become involved in any discussions as to the quality of care or length of hospital stay per patient, attitudes of individuals involved in this program, or any other singular issue. Rather, what you must determine is how to stand on the principle involved. Remember, there is no disagreemeent on the care of the service-connected veteran patient. Your decision should be based upon the following questions:

1. Is a Government hospital program as vast as this one worthy of your concern?

2. Is the veteran in a special class of citizens, or should the veteran discharged from service in good health be considered as all other citizens.

3. Should the American Medical Association continue to take a position in this controversy, and what should this position be?

4. Should you as citizens influence your local communities to assume responsibility for indigent patients, or should this become an ever-increasing Federal responsibility?

5. Should the oath of inability to pay, sworn to by the veteran, be subject to verification, as is the statement of every other citizen who makes application for free medical care?

6. Should those veterans hospitals which are not accessible by transportation, which are inadequately staffed, and so on, remain open, or should the recommendations for their closure and sale as made by the Hoover Commission in this regard be followed?

There are many other questions to be answered. These are but a few each of you should consider.

In closing, let me say I bear no malice toward any group or Government agency, and I believe in the American veteran. I personally do not think that the rank and file want or expect widespread Government medical care. We did not go to war for the purpose of changing the American way of life.

WOMAN'S AUXILIARY NOTES

Mr. Bryson Rash, the well known news commentator of WMAL-TV and White House correspondent, spoke informally to an attentive audience at our November meeting. He told of many humorous, dangerous, and harrowing experiences while traveling on presidential campaign trains. There was all the suspense of a melodrama in the story of a reporter's experience with the overzealous Russian Secret Police at the United Nations meeting in San Francisco. Mr. Rash was at his sparkling best in a question-and-answer period when Auxiliary members queried him in rapid-fire order on politics, world affairs and persons in the news. Following the program, the House Committee served a buffet luncheon "in tune" with the coming holidays. The cold sliced turkey and cranberry salad looked festive and were delicious.

Mrs. Rapee has appointed our House Chairman, Mrs. James Peter Murphy, to work with the Medical Society's House Committee, as suggested by the Medical Society's President, Dr. William Ross Morris. She has also appointed Mrs. Duane C. Richtmeyer, our Advisory Chairman, to represent the Auxiliary at the Medical Society's indoctrination luncheons for their new members. It was also Dr. Morris' suggestion that Auxiliary members could be of valuable assistance to the Society's Speakers Bureau by informing lay groups of this service. The

Auxiliary is ready and anxious to assist the Medical Society in whatever way Dr. Morris feels we can best serve the Health Fair, which is expected to open in the spring of 1957.

Our President has announced a contest which should interest all Auxiliary artists, professional and amateur. There will be a prize awarded for a medallion or seal to decorate the masthead of our *Newsletter*. Appropriate symbols, the Auxiliary's name, and its birth date, 1925, should be incorporated into the design, which may take the shape of a circle, oval, or any other shape the artist wishes. An approximate span of 5 inches for the original drawing is suggested. Mrs. Joseph M. Rom will be glad to answer further questions regarding the seal.

Mrs. Jonathan M. Williams, Philanthropic Chairman, has organized a corps of workers to assist with the D. C. Tuberculosis Association Christmas Seal Sale. Auxiliary members will man a booth in the Georgetown Branch of the Riggs National Bank. She has also asked Auxiliary members to contribute old, torn or worn-out sheets, pillow cases, and any other usable white materials to the Cancer Society for use as dressings for home cancer patients.

Our President, along with our President-elect, Mrs. Albert E. Marland, and Mrs. Edgar E. Quayle, attended the National Convention for Auxiliary presidents and presidents-elect, held in Chicago on November 1, 2 and 3. At this meeting Mrs. Rapee read an informative paper on the Bricker Amendment. Because of its importance to the medical profession, we are including this paper in its entirety.

THE BRICKER AMENDMENT

The American Medical Association indorses the principle of the Bricker Amendment because it believes the framers of the Constitution did not anticipate the extent to which treaties and executive agreements could affect the domestic life of our country. In 1951, a study made by the American Bar Association led to the conclusion that treaty powers and powers of executive agreements had been dangerously expanded. Senator John Bricker of Ohio thereupon introduced his bill proposing a Constitutional amendment.

What reasons other than those just stated prompted the introduction of this legislation?

1. The United States is in a different position than most other major powers with respect to treaties. Here when a treaty is ratified, it becomes immediately effective and is the supreme law of the land, superior to all state and Federal laws then on the books.

2. Under present law, a treaty may be ratified and become effective after approval of two thirds of the Senators present at the time of voting, not two thirds of the entire Senate. The House of Representatives does not vote on treaties.

3. An executive agreement is regarded as effective when it is signed. It need not be submitted for Senate approval. It is true that treaties are considered more important than agreements, but it is the President or the Executive Department that decides whether a document is to be labeled a treaty or an agreement.

This is all a matter of vital importance to the medical profession because of the effect treaties may have on state licensure laws, as well as the damage it may do to our entire system of medical practice. In 1923, a treaty between the United States and Germany was entered into forbidding states to bar a person from medical practice solely because he was an alien. This in spite of the fact that there are 19 states requiring citizenship before granting licenses to practice certain professions, 14 states requiring first papers, and 10 who do not accept foreign-trained physicians.

Socialized medicine could slip in through our back door by the ratification of any of the many international agreements involving medical care, sickness, unemployment, maternity, and many other benefits proposed through the United Nations and its numerous specialized agencies, such as the International Labor Organization.

We believe the Bricker Amendment is designed to remedy this situation. It proposes:

1. That a treaty or other international agreement which conflicts with the Constitution shall not be of any force or effect.

2. That a treaty or other international agreement shall not become effective as internal law except through valid and appropriate legislation.

The American Medical Association has no preference as to the language best suited to accomplish this purpose but feels, as citizens and physicians, that recent developments make such an amendment vitally necessary. In 1954, this amendment lost by one vote, and there is little doubt that the bill will be considered again by the Senate when the time is appropriate.

It is very important that those who supported the Bricker Amendment continue to remind their Senators of the American Medical Association's position. Those who voted against it the last time may support it next year if they are convinced that the sentiment among their constituents is to return the power to make our laws to the states and the Congress where it belongs.

At the December meeting the Auxiliary will hold its Annual Tea honoring our new members. This is always a delightful social event with everyone in a party mood. The beautiful library, decorated with Christmas greenery and candlelight, imparts a feeling of warmth and friendship in keeping with the holiday season.

Merry Christmas and a Happy New Year!

MRS. I. PHILLIPS FROHMAN
Publicity Chairman

On the Lighter Side

Christmas is almost here, and in looking back over the months we wonder why in the name of Santa Claus we did not start our Christmas shopping on the first day after the New Year. It isn't the time needed to shop so much as it is what to get when we do have the time. Do you have that problem? What to get a guy or a gal that will be useful, decorative, interesting and expensive for as little as possible? Most adults have already acquired every little thing that they really want and use and to give them something that is not useful means a present wasted. But for children! That's different. Most anything is acceptable regardless of cost and they are happy. After all, Christmas giving was conceived for children.

Nowadays the stores are skipping Thanksgiving to give us more time to shop for Christmas; and I suppose in the years to come we will have no need for the Fourth of July for the same reason; however, I do want to begin this piece by wishing all my readers a very merry Holiday Season with large packages filled with health and happiness and a few honest dollars thrown in to boot.

Hunting note: All duck and goose hunters can help the United States Fish and Wildlife Service to spend the taxpayers' money by properly filling out a printed form available in Post Offices throughout the Nation. These forms will be handed out to hunters when they purchase their Federal duck stamps.

Those who return the survey cards, properly filled out, of course, will receive a questionnaire at the end of the shooting season on which they will be asked to report their season's success.

What does the U. S. Fish and Wildlife Service want with this information? Two things; namely, this information will enable the Service to determine the number of ducks and geese shot down by happy hunters across the country, and this information will enable the Service to change the present regulations to represent the best long-term interests of both the shooter and the shootee.

Of course, if you just happen to bag more than the legal limit—the Service would like to have this information also.

Fishing note: By the time you read this the Chesapeake Bay rockfish will be well on their way to hibernation quarters down in the depths around Smith's Point on the Virginia shore.

Their itinerary is planned and deliberate. The migration begins from around Bloody Point, the Devil's Hole, the Wild Ground, the Winter Gooses and from the succulent grasses off Barren Island's slopes.

They travel leisurely and first class. They loiter at times for as long as two–three weeks feeding gluttonously to store up extra fat against the winter's lean pickings. Because of this known habit of the "Bay Rock," fishermen tell me that trolling is the most profitable fishing at this time of year.

Back in the milder days of November, Dr. Stephen F. Verges got his share of 162 whoppers off James Island and there were many 5 to 8 pounders in the catch.

Those fishermen who want fish and like the big ones, and who relish trailing the "Bay Rock" to their lair, will catch them on wire lines with bucktails and spoon lures—so I am told. Also, if you want a little work-out with your fishing, use a double or treble lure and you are in for a peck of fun when the hungry ones strike.

Chuckle note: Middle age is when a fellow who has dropped something and stooped to pick it up first notices how much lower they are building the floors these days. . . . If you are troubled by the noise in your car, why don't you let her drive. . . . Some papers read at medical meetings are like the horns of a steer—a point here and a point there and a lot of bull in the middle. . . . Love your enemies. It will drive them nuts.

J. Earl Kadan, M.D.

News and Personals

MEETINGS—Past and Future

Dr. William P. Herbst has submitted the following dates of meetings for the **Joint Urological Conferences** of Washington hospitals:

George Washington Hospital, November 29
Freedmen's Hospital, December 27
Naval Medical Center, January 31
Walter Reed Army Medical Center, February 28
Veterans (Mt. Alto) Hospital, March 27
D. C. General Hospital, April 24

The meetings are held on Tuesdays at 8:00 p.m.

A one week **intensive course in the Clinical Use of Radioactive Iodine** (I^{131}) will begin April 2, 1956. The course will be presented in the Isotope Laboratory at the Georgetown University Medical Center under the direction of Dr. Benedict J. Duffy, Jr., Director of the Laboratory, and Mr. John R. Howley, Physicist. The hours of instruction are scheduled for 9 a.m. to 4 p.m., Monday through Friday.

The course is open to physicians only, with a minimum registration of 6 and a maximum of 14. Registrations should be submitted not later than two weeks prior to April 2, 1956. The fee for the course is $100.00.

Many Washington physicians who attended the **49th Annual Meeting of the Southern Medical Association** in Houston, Texas, November 14–17, took an active part in the scientific program. The Medical Society of the District of the District of Columbia was represented at the following sectional meetings:

Section on Anesthesiology: "Neuropathological Changes Demonstrated during Prolonged Survival Following Acute Hypoxia," Dr. Thomas F. McDermott, who also led discussion on another paper.

Section on Dermatology and Syphilology: "Treatment of Seborrhea Capitis, Seborrheic Dermatitis and Pyoderma with Sebizon," Drs. A. H. Gould and H. L. Hirsh.

Section on Industrial Medicine and Surgery: "The Problem of Disability Certification," Dr. R. Lomax Wells.

Section on Medicine, in joint session with the *Section on Pathology:* Symposium on Thyroid: "The Correlation between the Uptake of I^{131} PBI, Cholesterol Levels in the Normal and Thyroid State," Dr. Richard E. Palmer, Alexandria, Va., and Dr. Harrison H. Leffler; "Pathology of Non-malignant Thyroid Gland as Induced by Therapy," Dr. Robert J. Fink.

Section on Orthopedic and Traumatic Surgery: "Coxa Magna: Case Reports," Dr. John P. Adams.

Section on Pathology: "Malignant Epithelial Tumors Associated with Fistulae-in-Ano and Anal Crypts," Drs. M. J. Matthews and D. L. Weiss; "Urinary Bilirubin Procedures: Methods and Results," Drs. E. Long, P. Athanasiadou, M. Reiner, and D. L. Weiss.

Section on Urology: "Clinical Potentialities and Conservative Management of Renal Calculus Disease," Dr. William P. Herbst III. Dr. Lloyd G. Lewis discussed one of the papers read before this section.

Geriatrics Symposium: "Rehabilitation in Geriatrics," Dr. A. B. C. Knudson.

Section on Physical Medicine and Rehabilitation: Panel Presentation on the Effective Rehabilitation of the Disabled for Actual Employment: "The Role of Motivation in the Rehabilitation Process," Dr. Josephine J. Buchanan.

Dr. Charles D. Shields was moderator of a Symposium on the Rehabilitative Management of the Severely Disabled, Chronically Ill, and Aging. Following the presentation of the papers in the symposium he opened the discussion.

At the meeting of the Section on Pediatrics, Dr. Preston A. McLendon was moderator of a Symposium on Tuberculosis.

The following members of the Society presented scientific exhibits:

Drs. Marvin Fuchs and Lester S. Blumenthal, George Washington University School of Medicine: "Tension Headache—Etiology—Treatment."

Dr. James M. Moss, Georgetown University School of Medicine: "Today's Great Imitator, Diabetes Mellitus."

Dr. A. B. C. Knudson, Director, Physical Medicine and Rehabilitation Service, Veterans Administration: "Rehabilitation Follow-up—A Medical Responsibility in Treating the

Whole Man." Dr. Knudson is Secretary of the Section on Physical Medicine and Rehabilitation.

Dr. John W. Cronin: "The Hospital and Medical Facilities Survey and Construction (Hill-Burton) Program."

A number of scientific groups met conjointly with the Southern Medical Association, one of which was the Southern Society of Cancer Cytology. Dr. Lois I. Platt, Second Vice President of the Society, read a paper before the meeting on "Experience with Routine Prostatic Cytology in a Cancer Clinic."

Several members of the District Medical Society participated in the **28th Annual Scientific Session of the American Heart Association,** which was held in New Orleans, La., October 22–24.

Dr. Benjamin Manchester read a paper on "Adrenal Insufficiency in Patients with Myocardial Infarction and Shock" before a session devoted to Clinical Cardiology. In a session on Basic Science and Circulation, a paper, prepared jointly by Drs. Edward D. Freis, Harold W. Schnaper, Lawrence S. Lilienfield, Ilse M. Wilson and Renato Kovach, was presented, entitled "The Multiphasic Nature of Blood Flow, Velocity and Vascular Volume in the Upper Extremity of Man."

Dr. Bernard J. Walsh was Chairman of a session on Rheumatic Fever and Congenital Heart Disease. "A Review of 100 Successful Kidney Biopsies," by Drs. Alvin E. Parrish and John S. Howe, was presented before a session on High Blood Pressure.

The 62nd Annual Convention of the Association of Military Surgeons of the United States was a three-day meeting at the Hotel Statler, November 7, 8 and 9. Dr. Frank B. Berry, Assistant Secretary of Defense (Health and Medicine) gave the welcoming remarks. Among those who spoke briefly at the opening session were Major General Silas B. Hays, Surgeon General of the Army; Major General Dan C. Ogle, Surgeon General of the Air Force; Dr. Leonard A. Scheele, Surgeon General of the Public Health Service; and Dr. William S. Middleton, Chief Medical Director of Veterans Administration. All of these physicians are Honorary members of the District Medical Society.

Dr. Stanhope Bayne-Jones, of the Research and Development Division, Office of the Surgeon General of the Army, was a panel discussant on the subject, "Clinical Testing and Joint Industry-Federal Research."

Brigadier General Leigh C. Fairbank, USA (ret.), was one of the recipients of the Founder's Medal. This medal, authorized by the Executive Council, is given for outstanding contribution to military medicine and conspicuous service to the Association. General Fairbank is an Associate member of the Medical Society.

The President of the Association, Major General Joseph I. Martin, presided at the opening meeting and gave the Presidential Address. The new President of the Association is Rear Admiral Winfred P. Dana, MC, USA, who served last year as First Vice President. Admiral Dana is Assistant Chief for Aviation and Operational Medicine and for Research and Medical Military Specialties in the Navy's Bureau of Medicine and Surgery.

The Washington Academy of Sciences joined with **The Medical Society of the District of Columbia** in a meeting, November 17, at the Armed Forces Institute of Pathology. Two lectures were given, one by Lt. Colonel Carl F. Tessmer, MC, USA, on "Long Term Medical Effects of Radiation in Man," and the other by Captain F. L. Jennings, MC, USA, on "Recovery from Acute Radiation Injury." Colonel Tessmer is Chief of the Radiation Injury Section of AFIP and Captain Jennings is Assistant Chief. The laboratory of the Institute of Pathology was open for inspection following the program.

New advances in the field of antibiotics were reported by medical scientists at the **Third Annual Symposium of Antibiotics** held in Washington, November 2, 3 and 4, 1955. The meeting was sponsored by the Food and Drug Administration in collaboration with the journals *Antibiotics and Chemotherapy* and *Antibiotic Medicine.*

Dr. Lawrence E. Putnam, Associate in Medicine, George Washington University School of Medicine, presented a paper at this meeting entitled "Penicillin V Blood Concentrations Following Oral Administration of Various Dosage Forms and Comparison with Penicillin G." He was also moderator at one of the sessions.

Dr. Sol Katz, Chief of the Division of Pulmonary Diseases, D. C. General Hospital, read a paper on "Mysteclin in the Treatment of Bacterial Infections." Co-authors of the paper were Drs. Abraham Gimble and James Shea.

Following a dinner meeting, November 21, at the Willard Hotel, the **Jacobi Medical Society** devoted its program to the reading of a number of short, original, scientific papers describing technics, procedures and case histories. Interested members were requested to submit their essays prior to November 1. Selected for presentation at this meeting were papers by Drs. Harvey H. Ammerman, Arthur Dick, Irvin Hantman, Maurice H. Herzmark, Norman H. Isaacson, Paul A. Lichtman, Lawrence E. Putnam, Isadore Rodis, Monroe J. Romansky, Alvin Seltzer, Harold Stevens, Raymond Stoller, Jacob J. Weinstein, and Alvin Wyman.

The George Washington University Medical Society held its regular meeting, November 16, in the Medical School Building. The subject, "When Is the Cancer Patient Considered Inoperable?" was discussed by the following panelists: Drs. Charles Stanley White, Calvin T. Klopp, Arnold McNitt, J. Keith Cromer, and William Newman.

The 11th Annual Meeting of the Potomac Chapter of the American College of Chest Physicians was held at the Greenbrier Hotel, White Sulphur Springs, West Virginia, on October 7. Dr. Edgar W. Davis participated in the program by presenting a paper on "Mediastinal Tumors."

The following officers were elected at the business meeting:

Dr. Edmund G. Beacham, Baltimore, *President*; Dr. Roy G. Klepser, *Vice President*; Dr. J. Winthrop Peabody, Jr., *Secretary-Treasurer*.

The Baltimore-Washington Dermatologic Society has elected new officers for 1955–56. Dr. Eugene Bereston, of Baltimore, is President, and Dr. Arnold Gould, of Washington, Secretary.

The meetings are held on the third Thursday of each month, October through May, in alternate cities.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia held its regular meeting, October 24. A letter from Dr. Willis B. Morse, Secretary of the Section on General Practice, notified the Board that the Section had nominated **Dr. R. Lee Spire** as the selectee of the District of Columbia for General Practitioner of the Year. The Board voted that the nomination of Dr. Spire, with supporting material, be forwarded to the American Medical Association.

President-elect Caulk submitted the name of **Dr. Marcel Foret** as his choice for Chairman of the Committee on Arrangements for District of Columbia Day, to be held November 12, 1956, the first day of the meeting of the Southern Medical Association in Washington, D.C. The Board approved Dr. Caulk's selection.

Dr. Joseph S. Lawrence, a member of the Committee on Public Policy, was selected by President Morris, with approval of the Board, as the Society's official representative at the AMA's Regional Legislative Conference at the Hotel Statler in New York, October 29.

The Secretary informed the Board that the Society had received a medal, picture and copy of the obituary of Dr. Monte Griffith, who was a member of the Society from 1896 until his death in 1913. The Board voted to accept these mementoes with thanks.

Georgetown University Hospital has received a grant of $105,000 from the John A. Hartford Foundation, Inc. of New York City. The grant, to cover a three-year period, will be used for research at the Medical Center in the departments of medicine and surgery.

Dr. George E. Schreiner will direct the work in the renal service, for the development of artificial kidney technics and for the employment of the kidney as a regional community service. In the department of surgery, **Dr. Robert J. Coffey,** Chief of Surgery, will use the balance of the grant for the investigation of abnormal fat metabolism and its intimate relationship to the development of acute and chronic pancreatitis, atheromatous disease of the blood vessels, and the degenerative diseases of senility.

The Hartford Foundation was established by the late Mr. John A. Hartford, who was President of the Great Atlantic and Pacific Tea Company for many years.

The District of Columbia Trudeau Society was organized at Walter Reed Army Hospital, November 16. Dr. Julius L. Wilson, Director of The Henry Phipps Institute, University of Pennsylvania, and Director of Medical Education of the American Trudeau Society, spoke before the group present on "Wishful Thinking in the Treatment of Tuberculosis." A constitution and by-laws for the new organization were adopted following the program and the following officers were elected:

Dr. Daniel L. Finucane, *President*; Dr. Otis F. Fraley, *President-elect*; Dr. Wilder P. Montgomery, *Vice President*; Dr. Milton Gusack, *Secretary-Treasurer*; Drs. James Laurey, Edward Blomquist, and Luther Terry, *members of the Executive Committee.*

Dr. Thomas McPherson Brown, Professor of Medicine at **George Washington University School of Medicine,** will be the first to occupy the newly endowed **Eugene Meyer Chair of Medicine** at the University.

Family, friends and associates of Eugene Meyer, who is Chairman of the Board of the *Washington Post and Times Herald*, contributed the sum of $300,000 to establish the Eugene Meyer Chair of Medicine at George Washington in recognition of his 80th birthday. The announcement was made at a luncheon in his honor at the Willard Hotel, which was attended by more than 700 friends and associates, including a host of dignitaries and officials, among them Vice President Nixon and Chief Justice Warren. The Honorable George A. Garrett, former Ambassador to Ireland, presented the gift of the chair to the University and it was accepted by President Cloyd H. Marvin.

Dr. Brown has pioneered as a research worker in the field of arthritic diseases. A graduate of Johns Hopkins University School of Medicine in 1933, he interned at Johns Hopkins Hospital and continued his training there as resident physician for three years. From 1937 to 1939 he was a resident on the Rheumatic Fever Division at the Rockefeller Institute Hospital, New York, after which he returned to Johns Hopkins as Chief Resident on the Medical Service and Associate in Medicine. Later he was co-director of the Biological Division. He was Assistant Professor of Medicine at Johns Hopkins when he came to Washington in 1946 to become Chief of Medicine and Director of Arthritis Research at Veterans Administration (Mt. Alto) Hospital. In 1948 he accepted the position of Professor of Medicine at George Washington University, but continued as consultant in arthritis and infectious diseases at Mt. Alto.

THOMAS McP. BROWN, M.D.

During World War II he was on leave of absence from Johns Hopkins and served as Medical Officer, Chief of Medicine, and finally Commanding Officer of the 118th General Hospital. He held the rank of Lieutenant Colonel.

In an editorial in the *Washington Post* the hope was expressed that this unique way of honoring a community leader set a precedent for future groups. Part of the editorial reads:

"The medical schools of Washington's universities have long needed the kind of encouragement embodied in the establishment of the Eugene Meyer Professorship. The chair carries with it a stipend sufficient to enable men of the highest caliber to occupy it; and the choice of Dr. Thomas M. Brown as the initial holder is immensely felicitous and auspicious. Such a professor will draw around himself other researchers and teachers of great ability; and if other donors in the future follow the pattern established in this instance, Washington may well become one of the great centers of medical research and practice."

The first hospital for epileptic children in the Washington area was opened for inspection, October 30. Located at 3734 Rhode Island Avenue, in Brentwood, Md., the hospital began operating with 11 patients and a staff of 6, working under Dr. Henry L. Bowditch. Mrs. M. T. Broyhill is President of the Federal Association of Epilepsy, which has established this new facility in Washington. Financial support has come in large part from the $33,002 raised by a recent telethon.

Walter Reed Army Medical Center announces that as of November 1, the Army Medical Graduate School was redesignated the **Walter Reed Army Institute of Research.**

The District Commissioners voted, October 25, to close the **Upshur Street Tuberculosis Hospital** in 30 days. The financial savings obtained through closing this hospital will be divided between Glenn Dale Sanatorium and the District General Hospital. The Upshur Street Hospital, a 47-year-old structure, has last been used as a rehabilitation facility for patients whose tuberculosis has been arrested.

PERSONALS

Drs. Andrew A. Marchetti, John Parks, and Robert H. Barter were lecturers in a Symposium on Obstetrics and Gynecology, December 7–9, at the Medical College of Virginia, in Richmond, held in connection with the Twenty-seventh Annual Stuart McGuire Lecture Series. The McGuire Lecturer was Dr. Richard W. TeLinde, Professor of Gynecology, Johns Hopkins University School of Medicine.

Dr. John Parks, Professor of Obstetrics and Gynecology, George Washington University School of Medicine, gave two lectures, December 8, one on "Obstetric Misconceptions," the other on "The Abnormal Placenta." Dr. Barter, Associate Professor of Obstetrics and Gynecology at George Washington, presented two papers the same day on "Complications of Abortion" and "Management of Ovarian Tumors."

On December 9, Dr. Marchetti, Professor of Obstetrics and Gynecology, Georgetown University School of Medicine, spoke on "Forceps—Their Use and Application."

Dr. Jerome F. Crowley was honored by the Georgetown Clinical Society at its Old Timers' Meeting, March 15, and presented with the Society's Award of Merit. Dr. August Kramm, a former student of Dr. Crowley's, presented the award in recognition "of nearly thirty years of devoted and outstanding service" to Georgetown University School of Medicine. Dr. Crowley was first appointed to Georgetown as instructor in his specialty in 1918. He became Assistant Professor in 1928 and in 1932 Associate Professor, which position he held until 1947. In 1929–30 he was President of the Georgetown Clinical Society.

Dr. Garnet W. Ault, Professor of Proctology, Georgetown University School of Medicine, gave the William Beaumont Lecture and received the accompanying award at the 90th Annual Meeting of the Michigan State Medical Society, held in Grand Rapids, Michigan, September 28–30. The subject of Dr. Ault's lecture was "Recent and Important Changes in Treating Colonic and Rectal Carcinoma."

Dr. Fred L. Soper, Director of the Pan American Sanitary Bureau, received an honorary degree from Jefferson Medical College, Philadelphia, September 23, on the occasion of the centenary of the graduation of Carlos Juan Finlay, who expounded the theory that yellow fever is transmitted by the mosquito *Aedes aegypti*. Dr. Soper, who is an Associate member of the District Medical Society, was described in the citation as "the outstanding man in the field of public health administration today."

Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, was an invited participant in

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
September 27	Dr. George Maksim	Present Status of Salk Polio Vaccine	Coolidge High School Home and School Association
October 3	Dr. Julius Schreiber	Emotional Basis of Effective Marriage	Langley Hebrew Congregation
October 9	Dr. Julius Schreiber	Mental Health and Your Community	Menninger Foundation Committee, Silver Spring, Md.
October 10	Dr. Daniel L. Seckinger	Polio Immunization Program for the District of Columbia	Mt. Pleasant Citizens' Association
October 19	Dr. Julius Schreiber	Marriage and Family Life	W. B. Powell School Parent-Teacher Association
October 26	Dr. Frederic G. Burke	Mental Retardation in Children	Washington Junior League
October 26	Dr. A. M. Duval, *Moderator* Dr. John R. Pate	Panel Discussion on Juvenile Delinquency	District Mental Health Association
November 1	Dr. George Maksim	Present Status of Salk Polio Vaccine	Eastern High School Home and School Association
November 3	Dr. Alan Coleman	Problems of the Preschool Child	Mothers Council of the D. C. Recreation Department's Coöperative Nursery Schools
November 5	Dr. Julius Schreiber	Mental Health and Your Community	Menninger Foundation Committee, Washington, D. C.
November 6	Dr. Edward A. Cafritz	Early Diagnosis and Treatment of Cancer	Adult Study Group, Washington Hebrew Congregation
November 10	Dr. Julius Schreiber	Emotional Needs of Children	Parent Group, Hillandale Recreation Center
November 16	Dr. Julius Schreiber	The Modern Woman and Her Emotional Fulfilment	Arlington Unitarian Church
November 16	Dr. Peter D. Comanduras	Early Diagnosis and Treatment of Cancer	D. C. Industrial Union Council
November 17	Dr. Milton L. Goldman	Early Diagnosis and Treatment of Cancer	Young Adult Study Group, Talmud Torah Temple

an International Colloquium on Chlorpromazine and Other Neuroleptic Drugs in Psychiatric Treatment. The meeting was held in Paris, October 20–22, under the auspices of the Faculty of Medicine of the University of Paris.

Dr. Overholser has just been elected an honorary member of the Sociedad de Neuro-Psiquiatria y Medicina Legal of Lima, Peru.

Dr. Leonard Scheele, Surgeon General of Public Health Service, was one of the speakers at the Fifth National Conference on Physicians and Schools, held at Highland Park, Illinois, October 12–14. He also addressed the opening session of the Annual Convention of the National Society for Crippled Children and Adults, November 28–30, at the Palmer House in Chicago.

Dr. Sol Katz was chosen President of the Metropolitan Washington Tuberculosis Conference, which was held in the Department of Health, Education and Welfare, October 27.

Dr. Roy G. Klepser, Associate Professor of Thoracic Surgery, Georgetown University School of Medicine was elected to the Executive Committee.

Dr. Wallace M. Yater delivered the Frank N. Hack Memorial Lecture at the Winchester Memorial Hospital, Winchester, Va., November 16. The title of his address was "The Enigma of Coronary Atherosclerosis."

Dr. Harvey J. Tompkins, Director of the Reiss Mental Health Pavilion of St. Vincent's Hospital in New York City, has been named to a new advisory committee to the Veterans Administration. For the first time in medical history, the VA, in a five-year study, will make an extensive evaluation of mental patient care to determine what types of treatment and hospitals best promote the improvement or recovery of its psychiatric patients and the relative costs. Dr. Tompkins was formerly Director of VA's psychiatry and neurology service. He is an Associate member of the District Medical Society.

Dr. Walter A. Bloedorn was reëlected Secretary of the Gorgas Memorial Institute of Tropical and Preventive Medicine at its annual meeting, October 27, held in the Pan American Union Building.

Colonel Joseph F. Siler, USA (ret.) was reëlected President. He has held the presidency of the organization, which is devoted to medical research in Central America and Panama, since 1941. Among those elected to serve three-year terms as directors were **Drs. Bloedorn, Stanhope Bayne-Jones and Howard T. Karsner.**

Dr. Frank D. Costenbader was in Wheeling, West Virginia, November 22, to speak before the Fort Henry Academy of Medicine. The subject of his address was "Serious Ocular Affections of Infancy."

Dr. Sol Katz presented a paper before the Regional Meeting of the American College of Chest Physicians, November 19, in Baltimore, Md. Drs. Robert F. Donohoe and Mary Jean Matthews were co-authors of the paper, which was entitled "Needle Aspiration Biopsy of Pleura in the Diagnosis of Pleural Effusion."

Walter Reed Army Medical Center was host in October to the American Board of Dermatology and Syphilology, which conducted oral examinations of 88 candidates applying for certification. Guest examiners included **Drs. Frank J. Eichenlaub and June Carol Shafer.**

Dr. Jack P. Segal, Instructor in Medicine, Georgetown University School of Medicine, participated in a Postgraduate Teaching Day on Heart Disease, sponsored by the Rochester Academy of Medicine and the Health Association of Rochester and Monroe County, in Rochester, N. Y., November 3. Dr. Segal spoke on "The Recent Advances in the Treatment of Aortic Stenosis and Insufficiency."

Dr. Samuel Benjamin completed a course on "Recent Development in Psychiatry for the Internist," which was given in Topeka, Kansas, in October under the auspices of the American College of Physicians. The course was conducted by instructors from the Menninger School of Psychiatry, the Menninger Foundation, Topeka State Hospital, Winter Veterans Administration Hospital, and the University of Kansas School of Medicine.

Dr. Wallace M. Yater, Editor, **Theodore Wiprud,** Managing Editor, **and A. Louise Eckburg,** Assistant Editor, of the MEDICAL ANNALS, attended the State Medical Journal Conference, held at the AMA Headquarters in Chicago, November 7 and 8.

Dr. Albert D. Kistin is now Chief of Medicine at the new Beckley Memorial Hospital in Beckley, West Virginia. Dr. Kistin left Washington, December 1, to accept the new position.

CONFERENCE ON SCHOOL HEALTH

The emergence of the medical, education, and public health professions as a functioning "team" was a major theme of the fifth National Conference on Physicians and Schools, held at Highland Park, Ill., Oct. 12–14. More than 200 physicians, public health officials, educators and representatives of related organizations participated in round-table discussions at the conference, sponsored biannually by the American Medical Association and its Bureau of Health Education. Thirty-four states and the District of Columbia were represented by the conferees.

* * * * *

Athletic activities and their emotional aspects were discussed by the group with Dr. George Maksim, District of Columbia Medical Association, as chairman. They suggested that a different approach is needed for children up to 12 and those over 12. In the young group, athletic activities should: (1) be adapted to growth patterns of the individual, (2) encourage maximum participation by breaking big groups up into small ones, (3) involve both coöperation and competition adapted to the age and maturity of the pupils, (4) afford opportunity for the child to succeed, (5) reduce unfavorable emotional responses to a minimum, and (6) recognize motivations of the pupils. For the older groups, activities should: (1) help students develop a sense of values, independence, and coöperation, (2) recognize characteristics of adolescence, (3) be comprehensive, including individual, group and coeducational activities, (4) reduce unfavorable emotional responses to a minimum, (5) be on an intramural basis in the junior high schools and for girls in the senior high schools, (6) keep exhibitionism at a minimum, (7) be supported by sound administrative practices, and (8) be an integral part of the educational program and be so financed. The group added a note that motivations of adults planning sports programs for children should be carefully studied.

—*Reprinted from* J.A.M.A., 1955, **159**, 1126–7.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, October 24, 1955, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

S. George Anagnos, 5607 Burgess Drive, Hyattsville, Md.
Thomas J. M. Burnett, 2004 N. Illinois Street, Arlington, Va.
Bette L. Catoe, 5327 2nd Street, N.W.
Harriette Clark Chambliss, 517 Montana Avenue, N.E.
Walter A. Combs, 1820 S Street, N.W.
Robert A. Dornbach, 4221 South Capitol Street
Henry W. Edmonds, 1711 New York Avenue, N.W.
Charles E. Hannan, 921 20th Street, N.W.
Donald Arthur Johnson, Washington Clinic
Mary Marlene Jones, 3035 Que Street, N.W.
Fuad I. Kaibni, 1801 Eye Street, N.W.
Calvin B. LeCompte, 61 R Street, N.E.
John Thomas Lord, 5401 Bradley Blvd., Bethesda, Md.
Lloyd H. Newman, 114 S Street, N.W.
John C. Oliver, 1901 11th Street, N.W.
William E. Sheely, 1746 K Street, N.W.
Richard L. Siggers, 8020 14th Avenue, Hyattsville, Md.
Robert Earl Stadelman, 2414 Pennsylvania Avenue, N.W.
William R. Strong, 1801 K Street, N.W.
Arthur M. West, 1248 Fairmont Street, N.W.
William Howard Yeager, Jr., 1800 Connecticut Avenue, N.W.

Associate Members

George J. Cohen, 9919 Georgia Avenue, Silver Spring, Md.
Randolph A. Frank, 2122 California Street, N.W.
Allen E. Marans, 1929 Merrimac Drive, Adelphi, Md.
Reber Miller VanMatre, 1602 N. Fort Myer Drive, Arlington, Va.

Resident-Intern Member

Victor H. Esch, 814 Maryland Avenue, N.E.

The following applicants for membership will be voted on at the meeting of the Executive Board, January 23, 1956.

For Active Membership

Josephine J. Buchanan, New York University—1924
Stewart W. Bush, Johns Hopkins University—1946
Charles W. Clark, Howard University—1944
Claude L. Cowan, Howard University—1931
Lena F. Edwards, Howard University—1924
Dorothy C. Holzworth, George Washington University—1950
William Richard Hyde, Howard University—1947
Bernard J. Michela, Cornell University—1949
John A. Spittel, Jr., University of Maryland—1949
Willie L. Statom, Meharry Medical College—1953
Francis N. Waldrop, George Washington University—1950
Frederick E. Wetzel, New York University—1942

For Associate Membership

Joseph J. Bunim, New York University—1930
Theodore H. Chuang, St. John's University, Shanghai, China—1948
Juliana Day, Tufts College—1948
Robert L. Guillaudeu, Georgetown University—1949
Henry T. Kulesher, Georgetown University—1937
George Labarraque, Havana (Cuba) University—1949
Roland W. Penick, University of Georgia—1949
Robert E. Smith, Jr., D.D.S., Howard University—1951
Frans Peter Donatus Timmermans, Münster University, Westphalia, Germany—1936
Hsiang Len Tseng, Hsiang Ya Medical College, Changsha, China—1937

BOOK REVIEW

Clinical Disorders of Hydration and Acid-Base Equilibrium. Louis G. Welt, M.D., Professor of Medicine, Department of Medicine, University of North Carolina. Price, $6.00. Pp. 262. Boston: Little, 1955.

Dr. Welt presents clearly the physiologic aspects of salt and water balance which operate in health and disease. The concepts of molecular and ionic concentration are clarified, and the usefulness of this system in relating and comparing components of the body fluid, one with another, is emphasized. Principles of acid-base balance are lucidly presented, and the physiologic function of the kidney is presented in terms of its role in preserving the fluid-electrolyte economy of the body.

Finally, in the section on clinical problems, considerations of both health and disease states are tabulated and explained in detail. Correction of unbalance follows as a rational sequence when the mechanisms of imbalance are understood.

This is a splendid book, well written and printed. At times one looks for a diagram to illustrate a point and is disappointed to find it isn't there.

The book is highly recommended for anyone doing clinical medicine. It would be invaluable to house officers daily faced with these problems.

Robert J. Gilston, M.D.

DANIEL DELEHANTY VINCENT STUART, JR., M.D.

(1885–1955)

Dr. Daniel D. V. Stuart, Jr., well known in Washington as a specialist in neurology and psychiatry, died, November 11, 1955, at Kecoughtan (Va.) Veterans Administration Hospital following a long illness.

Dr. Stuart was born in Brooklyn, N. Y., January 1, 1885, the son of Rear Admiral Daniel D. V. Stuart, USN, and Alicia Alison Smith Stuart. Dr. Stuart was educated by private tutors and attended Loyola Preparatory School and St. Francis' College, both in New York. He graduated from Georgetown University School of Medicine in 1908 and interned at Garfield Memorial Hospital from 1908 to 1910.

Dr. Stuart was commissioned Assistant Surgeon in the United States Navy in 1910, which commission he resigned in 1912 to take up postgraduate study in neurology and psychiatry at Johns Hopkins Hospital in Baltimore. He was re-commissioned Captain in World War I and served for two years, 1917 19. During those war years he fulfilled assignments as Chief of Neuropsychiatric Service at the Base Hospital, Camp Meade, Md.; Chairman of the Neuropsychiatric Examining Board, Camp Sevier, S. C.; and Chief of the Neuropsychiatric Service, General Hospital No. 4.

Following the War he resumed his position as Assistant in Clinical Neurology at Johns Hopkins University, serving until 1922. In 1923 he joined the faculty of Georgetown University, first as Instructor in Neurological Anatomy. He served successively as Associate Professor and later Professor of Clinical Neurology, Professor of Neurology, and Adjunct Professor of Neuropsychiatry, the last post from 1936 to 1941. He contributed many papers and monographs on neurological subjects during the years 1915 to 1940.

For many years he was on the attending staff of Garfield Memorial, Children's, and Doctors Hospitals. Until his illness in 1951, he operated his own clinic under the name of Brentwood Sanatorium in Brentwood, Md.

Dr. Stuart had been an Active member of the Medical Society of the District of Columbia since 1919. He was a member of the Johns Hopkins Medical and Surgical Association, the Philadelphia Neurological Society, and the American Medical Association. He was also a member of the Army-Navy Club, Military Order of the Carabao, Military Order of Foreign Wars, and Military Order of the Loyal League. In 1931 he served as a nominator for the United States of candidates for the Nobel Prize in medicine.

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